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ABSTRACT

These proceedings consist of 66 conference papers on these themes: changing nature of work; emerging technologies; internationalization of vocational education and training (VET); enterprise and educational innovation; flexible delivery approaches; and research and technology and using technology in research. The papers are "Training Needs of Older Workers" (Ball et al.); "In Search of Evaluation Truths--Representation and Abstraction" (Barratt-Pugh); "Competency-Based Assessment--One-Minute Wonder or Here to Stay?" (Booth); "Technical and Further Education (TAFE) as a Pro-Active Partner in VET in Schools" (Bradbery, Murphy); "Work-Related Learning and Changing the Nature of Work" (Brown); "Improving the Incentives for Investment in Learning by Adults" (Burke); "Seductive Hope of Education Work" (Childs); "Managing a Case Study Approach in VET Research to Address the Funding Agency's Criteria" (Choy, Hill); "Constructing Work" (Crowley et al.); "Changing Nature of Work and the New Politics of Literacy" (Devereaux); "Key Competencies in Training Packages" (Down); "Facilitating Educational

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Growth" (Down); "Unintegrated Training? Exploring Links Between Off- and On-the-Job Learning" (Dymock, Gerber); "Leadership in VET" (Falk); "Outcomes for Apprentices and Trainees in Australian Small Enterprises" (Freeland); "National VET Research and Evaluation Program" (Gibb); "University-VET Transition" (Golding, Vallence); "Voices in VET" (Green); "Work as Paid Employment" (Hanrahan); "Trying to Hit a Moving Target" (Harris, Simons); "'There Are Workplace Trainers and Then There Are Workplace Trainers'" (Harris, Simons); "Measuring Organizational Capability" (Hase); "VET Research Information from Around the World" (Hayman); "Collaborative Insider Research in VET" (Herbert); "Researching VET and the Voluntary Sector" (Hopkins); "English Rules OK?" (Kell et al.); "VET in Rural Schools" (Kilpatrick et al.); "Contributions of VET to Regional Communities" (Kilpatrick et al.); "'I Am Still Studying, I Just Have Not Finished'" (Kirkby); "Lifelong Learning in the New Millennium" (Krogh); "Learning from History" (Kronemann); "Admin Training Company's Best Practice Models" (Lewanski); "RAVL Symposium" (McIntyre et al.); "Further Local Participation Study" (McIntyre); "Using Longitudinal Data for Research on VET" (McKenzie); "Value of Work-Based Learning" (McNickle); "Effectiveness of Workplace Training and Assessment Practices in On-the-Job Traineeships" (Misko et al.); "Impact of E-Commerce on Online Learning Systems in the VET Sector" (Mitchell); "Exploring Capacity-Building" (Modra, Seddon); "Relationship Between Course Design, Delivery, & Course Outcomes" (Moy et al.); "What Skill? Whose Knowing? Futures for Competency Based Training" (Mulcahy, James); "Management Education" (O'Keefe); "Strategic Alliances and the New World of Work" (Owen, Bound); "Outcomes from Enabling Courses" (Phan, Ball); "Selling TAFE Short" (Pitt); "Leadership of Change--TAFE Study" (Rice); "Learning and Assessment Issues in Apprenticeships and Traineeships" (Robertson et al.); "How Owner/Managers Decide to Participate with New Apprenticeships for the First Time" (Rowlands); "Impact of VET Research" (Smith); "Police Culture and the Learning Organization" (Shanahan); "Teenagers' Full-Time Work and Learning" (Smith); "Preparing Learners and Workplaces in the Effective Use of Flexible Delivery for Workforce Training" (Smith); "Research and Technology--Using Technology in Research--Implications for Researchers and the Researched" (Smyth et al.); "Implementing Training Packages" (Stewart); "Trainee and Apprentice Retention and Attrition in Australia" (Symons, Simons); "Measuring Performance" (Symons); "Workbased Learning as Critical Social Pedagogy" (Wagner, Childs); "Flexibility Through Technology--Lessons from the Field" (Walsh); "Equity in Australian Education and Training" (Watson, Pope); "Three Years Down the Track" (Webb, Gibson); "Best Practice in Managing Diversity in TAFE Distance Learning Centers" (Weeks); "Flexible Delivery Approaches--Evaluating Outcomes and Informing Learning" (Wemyss); "Introduction to the New Zealand Industry Training Sector and the Industry Training Federation" (Williams); "Current and New Research Tools and Techniques in Planning" (Young, Stockdale); "Measuring Long-Term Impacts of Short-Term Projects" (Young); and "In Their Own Words" (Zuvich). (YLB)

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Future Research Research Futures

Proceedings of the third national conference of the Australian Vocational Education and Training Research Association (AVETRA)

Canberra Institute of Technology
23–24 March 2000

AVETRA

Australia's national association for VET research

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FOREWORD

The major focus of the third annual AVETRA conference, ***Future Research, Research Futures*** provided us with the opportunity to reflect on the VET research that has been undertaken in recent times and that which we need to do in the future. It was also timely as we stepped off into the Year 2000, to consider how we, who are interested in VET and VET research, could best inform and support the National Research and Evaluation Strategy for the next few years.

The conference themes covered aspects of vocational education and training that are receiving more and more attention in Australia and in other parts of the world. These themes were:

- The changing nature of work — implications for VET policy and practice
- Emerging technologies — can research support planning and the delivery of training?
- The internationalisation of VET
- Enterprise and educational innovation
- Flexible delivery approaches — evaluating outcomes and informing learning
- Research and technology, using technology in research — implications for researchers and the researched.

While many of the papers included in this volume fall into these categories, others fall outside the conference themes because they are focussing on specific national priorities and reporting on research in progress. The range of topics is extensive and the quality of the papers high, which indicates the growing strength of research in the sector.

Pauline Robinson, in her summing up of the conference, noted:

> Not surprisingly, the conference provided some answers to the questions posed, and raised further questions. It was clear that we are moving into a different and less predictable world in which many of our comfortable assumptions are being challenged. There are some short-term answers to our questions about future research and research futures, but the further horizons are less clear. We need new ways of working in the research area, more interdisciplinary approaches and more focus on the future rather than the past and the present.

There still remains, however, a real need to critically analyse what is happening in our VET environment and to vigorously critique the current policies and agendas that are driving the sector. Such analyses and insights are a springboard for the future.

Berwyn Clayton
2000 Conference Convenor
AVETRA President

Drawing out the threads

AVETRA CONFERENCE 2000: OPENING 'ROUND TABLE'

Jane Figgis

The opening session of the AVETRA conference was a Round Table on 'Future Research – Research Futures'. Each participant presented a seven-minute paper on the topic, followed by questions and a more general discussion.

The Round Table participants were:

Ian Chubb	Vice-Chancellor of Flinders University and President of the Australian Vice-Chancellors Committee (AVCC)
Martha Kinsman	Associate Director of Canberra Institute of Technology; in May she becomes Director and Chief Executive of the Gordon Institute
George McLean	Assistant General Manager, Research and Information in the Office of Post-Compulsory Education Training and Employment, Victoria
Chris Robinson	Managing Director of the National Centre for Vocational Education Research (NCVER)
Kaye Schofield	Director of Schofield and Associates; Executive Director of the Research Centre for Vocational Education and Training at UTS
Kenneth Wiltshire	JD Story Professor of Public Administration at University of Queensland and Special Adviser to the Australian National Training Authority (ANTA)

The Round Table was chaired by Jane Figgis, education journalist and consultant

Early in the Round Table proceedings, Kay Schofield announced that, in light of all the reviews of VET she has conducted over the last few years, she had begun to think of herself as the Red Adair of the VET sector. He famously capped burning oil wells. She pictures herself going from State to State, examining VET provision armed "with a bagful of very large corks: plugging one hole here, another there."

We laughed, but the image stuck and was used (and enlarged on) by other Round Table speakers and then by conference participants. It stuck because the holes-needing-corks image was a public acknowledgment, by some of the outstanding leaders of the sector, that big unresolved problems loom over it. Corks are not solutions.

It stuck because it was seen as an invitation to researchers that they could - and should - ask hard questions, question existing assumptions, and help develop new approaches to education and training. And that in a sector which has been so shaped and transformed by government policies that researchers had not been entirely sure they were free to critique it.

While the speakers differed in emphasis and tone, each confessed to feeling personally uncertain and concerned about fundamental aspects of the VET sector - about whether VET is positioned to deliver the skills, knowledge and enthusiasm needed for the work (and workplaces) ahead. They also talked about how research and researchers might make more of a difference in the sector.

SOME ISSUES OF CONCERN

Lifelong learning was mentioned by all the Round Table participants as a key issue. How could they not? The decreasing half-life of technical skills, instability of employment, the growing expectation that workers should be innovative and communicative - all indicate that to be capable of useful work, we will all need continuously to acquire new skills and knowledge and, perhaps, new attitudes and inner strength throughout our working lives.

If increasingly VET is for people coming in to replenish and redirect their work capability, there are a host of implications for the sector:

- **We will have to stop thinking of training, and of education more broadly, as an entry-level activity**

  Chris Robinson pointed out the demographics which show clearly that over the next 20 years the number of 15-24 year olds will remain static while the number of 45-64 year olds will grow by 40 percent. The people coming in to learn will not be young and they will not be 'wet behind the ears'.

- **The role of employers and of work-based learning in VET will need to be re-visited**

  In fact, Martha Kinsman would say they need to be substantially re-evaluated right now since enrolled TAFE students are overwhelmingly NOT sponsored by employers. "This means," she said, "we need to know much more about how students can most effectively learn vocational knowledge which is not directly related to their current employment...we need to know what makes for transfer validity...what student services are required...and much more."

- **Will VET continue to exist as an identifiable sector in its own right?**

  It was the courageous Kay Schofield who suggested that the sector might prove to have been a transitional moment: useful during the past 20 years but one that will disappear. "There are a whole bundle of issues in this lifelong learning debate that call into question every assumption on which the VET effort is premised." And she concluded, "As I go around with my very large cork, niggling at the back of my head is the question: do I want to spend the rest of my life playing Red Adair or do I want to spend it rebuilding some assumptions for a more robust future?" No one in the audience was left in any doubt as to how she answers that question.

Other issues were raised: the balance between technical skills and the so-called soft skills in VET; the 'reform' of the public sector which has led to down-sizing, out-sourcing and the division between purchaser and provider of training; whether the customer is always right; whether too much attention is paid to delivery at the cost of other issues. The list of questions and concerns appeared inexhaustible.

Ken Wiltshire pointed out, in fact, how little we know about the VET sector as an industry. "What is the price and income elasticity of its products?", he asked. What is the total amount of capital invested and what is the return on it? What is the profitability of the sector? Why do clients choose as they do?" These might sound harsh economic questions but understanding who is willing to pay for what and why is absolutely fundamental. His concern was echoed by others.

There is a danger, however, in this cornucopia of research topics. There are so many choices that the specific projects undertaken can spread in so many different, if important, directions that the work is effectively lost. The creation of the Research and Evaluation Strategy for VET in Australia in 1997 (and continuing) was one important and innovative way of attacking the problem - Australia, in fact, is the only nation to have a national VET research policy. But the speakers all recognised that the annual prioritising of research topics, and even the establishment of funded VET research centres and the Voced database, has not fully solved the problem.

Hence, the second theme woven through the Round Table presentations and discussion. If topical content does not guarantee research will be influential, what then might be done so the research actually 'makes a difference' in VET?

RESEARCH THAT 'MAKES A DIFFERENCE'

The first, and in some ways rather surprising, advice the Round Table participants offered was that we should all stop assuming that research is influential only to the extent it is incorporated into the thinking of senior policy-makers and shapes national and State/Territory VET policies.

It is undeniable that there is a pervasive, if often unstated, belief that the higher research floats towards the top of each VET hierarchy, the more valuable and important it has been proven. The speakers - and, remember, these are leading decision-makers themselves - were all concerned to dispel this notion and show that it is mistaken, even damaging.

Its central flaw is to imagine that decisions are made only by policy-makers - and that the most important decisions are made by the most important policy-makers. In fact, vital decisions are made at every point in the VET sector. This is not a romantic idea to shore up people's sense of self-worth. It is a simple truth that even the most highly specified and mandated policies have to be adapted to local conditions, and research knowledge about every single one of those local conditions is required if the sector as a whole is to be robust and effective.

Research, in other words, needs to be applicable to the full range of local activity in the sector and not merely to major policy initiatives. Time and again the speakers rejected the idea that 'one size fits all' and that there can be unitary research answers for either policy or teaching or marketing, planning, problem-solving or any other of the myriad activities VET involves.

The second line of advice from the Round Table - and, again, there was unanimity in this view - was that to 'make a difference' there needs to be far more interaction amongst researchers and 'do-ers'. The good research which has been done in VET often does not get the consideration it deserves simply because there has not been enough sustained dialogue around the research.

One might try to generate the required discussion from the very beginning of the research work. Ian Chubb suggested the research teams themselves need to be formed from an interactive, inter-disciplinary perspective. Taking it as a rule of thumb that the more different perspectives the better, one might seek to incorporate not only different disciplines in a research team but practitioners and policy-makers who have experience in different (relevant) aspects of VET provision as well.

George McLean, too, stressed the importance of ensuring there is interaction and dialogue well before research begins. It is his view that research priorities in the VET sector are relatively enduring: "it is how they are shaped and framed and reframed that is important in making them purposeful and valuable and valued."

He also gave a detailed and insightful account of the way in which dialogue can deliver coherence to diverse research projects after they have been completed. He described the way research knowledge is captured by his colleagues in the Victorian Office of Post-Compulsory Education, Training and Employment and, indeed, by practitioners he has known. Above all, he pointed out, it is an incremental process: new findings and ideas are discussed, often informally, around particular questions or issues the group is grappling with. This critical reflection and engagement takes time but gradually, and often unconsciously, the research is distilled and becomes integrated into their thinking.

He went on to point out that enough is now known about organisational learning, capacity building and 'knowledge management', to use a trendy label, that any working group - whether it be senior policy-makers in government or a teaching unit in TAFE - ought to be able to engage in this process of slow deliberation and learning. He is in no doubt that such deliberation, folding research into tacit knowledge, is the process that makes the research effort coherent and useful. Research makes a difference when it is in people's heads.

While dialogue and discussion about research findings does not require the presence of the original researchers, the traditional one-way dissemination of published research findings is a poor mechanism for generating receptivity and sustained dialogue. Researchers want policy-makers and practitioners to learn from their research. Yet we all know that simply telling someone something is the least effective way to promote learning.

No one argues against researchers and users meeting and talking but there is a question of whether such interaction can be too close and compromise the independence of a research program.

It was acknowledged by the Round Table speakers that, for the sector's long-term health, robust and independent research (and critique) is essential. Rather than keeping the two 'sides' at arms length, however, they advocated building stronger bridges. What is wanted is more trust and mutual understanding because, paradoxically, it is only within genuine partnerships that the dialogue can be frank and sharp - in a word, independent.

Beyond independence, there is another issue about what researchers can and cannot do. Are there certain VET topics which might not be researchable? In a sector which has been subject to so much change so rapidly, are many of the phenomena of interest too unstable to be studied?

Ken Wiltshire suggested, for example, that until quite recently training packages would not have been a fit subject for rigorous and systematic study because they were simply too new. He went on to suggest that sustained full-scale longitudinal research may be part of the solution, but basically the question of impermanence and change remains an intriguing and important challenge for the sector.

The Round Table produced lots of challenges, lots of unanswered questions. But it did so in a way which seemed to energise the whole of the Conference. It inspired, if that is not too strong a word, people to think seriously about the work that needs to be done and what they need to do it. Wiltshire goaded them along a bit with his comment: "the quality of a sector is reflected in the quality of the research it does." And, of course, Kay Schofield's heartfelt plea rang on: "are we going to just plug holes with big corks or are we going to learn what the fundamental assumptions of this sector ought to be?"

Mighty ambitions but not - they all seemed to agree (and hope) - impossible ones.

The training needs of older workers

Katrina Ball, Josie Misko and Andrew Smith
National Centre for Vocational Education Research

ABSTRACT

The nature of work has been the subject of significant change in recent years. More people are experiencing multiple changes in career as the security of employment once offered by large enterprises and the public sector has disappeared in the wake of downsizing. At the same time as the expectations of people regarding their working lives are changing, people are living longer and healthier lives. The old assumptions about people retiring from work completely at the age of sixty or younger, and living lives unconnected to the world of work are giving way to a situation in which an increasing number of older people prolong their working lives well past the conventional age of retirement. Changes in career and the desire of many to remain active in the workforce longer are two of the most important forces reshaping the training and learning experiences of older Australians.

These workforce demographics have great significance for the training and learning of older people. As older workers remain in the workforce longer and are increasingly subject to career change, access to training and learning opportunities will become more important to them. As older workers remain at work and as the population ages, the necessity for reorienting the Australian training system towards reskilling of older, adult workers will become increasingly important.

The study examines the labour market situation and the participation in training by older Australians and identifies specific training issues relevant to this group of Australians.

BACKGROUND

In future years it will become increasingly important that the vocational education and training sector provides for the training needs of older people in addition to providing entry-level training for young people. Already this is an important issue, as there has been a transformation in the age profile of the training environment since 1990, when less than 18 percent of people in the vocational training system were over 40 years of age. By the late 1990s (1998), almost 27 per cent of vocational students were over 40 years of age. Since 1990 the number of people between forty and fifty years of age in VET has doubled, while the number of people between fifty and sixty years of age has trebled. It is anticipated that the proportion of older people in the vocational education and training system will continue to increase because of the effect of demographic changes on the Australian population and changes in the nature of work that will require people to upgrade their skills and learn new skills throughout their working life. Therefore, it is timely to identify the labour market influences that impact on older people, the demographic and economic factors that predispose an older person to participate in training, the reasons why older people participate in training, and the type of courses that older people take in the vocational education and training sector.

In line with most OECD countries, in Australia older people account for an increasing proportion of the workforce because of demographic changes. In 1990, 39 per cent of people aged 15 and over were over 45 years of age. By 1998 the percentage in this group aged over 45 had increased to 43 per cent. Population projections[1] indicate that by 2010 almost half (49%) of people aged 15 years and over will be over 45 years of age. Apart from demographic effects, the number of older people in the workforce is increasing over time as health improvements extend the average working life. As the proportion of young people in the workforce declines, employers will increasingly need to look towards older people as a source of labour. Employers' skill requirements, that are currently met through training young people who are entering the labour force will, by necessity, need to be partially met in reskilling older workers.

Changes to the nature of work, the way it is organised and the skills it requires are now so rapid that people cannot expect to be working in the same area, or in the same manner, over their working life. These changes include the growth of non-standard employment including a shift to part-time, casual, outsourced or home-based work; downsizing; occupational change and the development of new occupations. New management practices employed by Australian enterprises in response to these changes, globalisation of markets and the free availability of technology have had a major impact on the type of skills sought by enterprises. Most new management practices such as total quality management, teamwork and learning orientation are associated with generic or "soft" skills (Smith et a!, forthcoming). In response to these workplace changes, the demand for training by older workers is increasing, as the skills of existing workers now need to be upgraded on an ongoing basis.

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[1] Derived from the demographic module of the Econtech, MM2 model

THE LABOUR MARKET FOR OLDER PEOPLE AND TRAINING

Labour force participation for both men and women declines gradually with age after 4o years of age for men and after 45 years of age for women[2]. However, for some members of the labour force, participation continues past 70 years of age. Despite the decline in labour force participation rates for men in older age groups, men over 45 years of age comprised 31 per cent of the male labour force in 1998, compared to 27 per cent as the start the decade, due to the effect of demographic changes on the Australian population. In 1998, 28 per cent of women in the age group 15 to 64 were aged over 45 years compared with 22 per cent at the beginning of the decade.

Consistent with labour force participation, involvement in training also declines with age as participation in vocational education and training declined for each age group over 45 years of age[3]. While the number of people in vocational programs declines with age, some people are still training well into their 70s. In the VET system, vocational and personal enrichment programs complement each other in providing a training environment for changing circumstances as people age.

The main issue facing older workers in the labour market is the length of time it takes to secure employment once they have become unemployed. Older workers are no more likely to become unemployed than are people who are younger than 45 years of age. However, once unemployed, it may take older people some weeks to find a job compared with the situation in the past. Although, there is a noticeable decline in the proportion of men working full-time after 55 years of age, most unemployed men continue to look for full-time work until they are over 65 years of age. Between 50 and 60 per cent of employed women in all age groups under 60 years of age are working full-time, however, over two-thirds of all unemployed women between 40 and 60 years of age are looking for full-time employment. The growth in jobs is predominantly in part-time jobs so while most older unemployed people are looking for full-time work it is more likely that a part-time job will be secured rather than a full-time job.

As a consequence of the length of time it takes an older person to find employment, the number of discouraged workers in older age groups is increasing. Over the 1990s, there was an increase in the number of both males and females who were classified by the ABS as discouraged workers. A discouraged worker is someone who wants a job but is not actively looking for a job. Between 30 and 60 years of age, women account for the majority of discouraged workers. At age 60 there are roughly equal number of men and women who are discouraged workers, however, after 60 years of age men form the majority of discouraged workers.

This group of people who are marginally attached to the labour market do not tend to participate in training so their ability to re-enter the workforce is being further compromised by a lack of current skills. For both men and women the number of discouraged workers has increased for all age groups for people over 30 years of age. For men, the highest rate of increase (218 %) in the number of discouraged workers was in the 40 to 44 year age group. For women, the highest rate of increase (42 %) in the number of discouraged workers was in the 60 to 64 year age group.

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[2] This information is based on an analysis of unpublished data from the November 1990 and 1998 ABS labour force survey (Ball, 1999). After 40 years of age, the age groups comprised 5-year age groups.

[3] This information is based on an analysis of data from the 1998 national VET provider data collection managed by NCVER.

Older workers in these industries are more 'at risk' of having difficulties in the labour market compared with older workers in growing industries. Consequently, it is important that such workers have access to training to assist their labour market mobility.

WHO PARTICIPATES IN TRAINING?

Apart from age per se, there are a number of factors that influence participation in training by older workers. Such factors include attachment to the labour market and labour market status, gender, place of birth and the attainment, or otherwise, of post-school qualifications. It is the interaction of these factors with age that will influence the ability of an individual to access training. Some of the factors will act to nullify the effect of age on an individual's ability to access training. In other instances these factors will compound the effect of age on the ability of an individual to access training. This information presented in this section is based on an analysis of unpublished data from the 1997 ABS Education and Training Experience Survey (Ball, 1999). Specific information on VET participation has been obtained from the 1998 national VET provider data collection managed by NCVER.

Gender

As a group, older women attached to the labour market have lower training participation rates than men. However, there are more older women than men training in both vocational and personal enrichment courses in the VET system. Men are more prevalent in vocational courses while older women are more prevalent in personal enrichment courses.

Women's participation in training is an organisational issue as not all groups of women in the labour market have lower participation rates than men. In general, participation rates for female wage and salary earners are comparable to the training participation rates of men. Self-employed women however, tend to participate less in training compared with their male counterparts. The group with the largest discrepancies in training participation rates between men and women is the group marginally attached to the labour market.

Labour force status

Details of the participation in training by persons in, or marginally attached to, the labour force in 1997 are presented in table 1. Of all people in the labour force, the least likely to access training are those people who are marginally attached to the labour force. By age 45, less than a quarter of each age group participated in training.

Table 1:
Participation in training by persons in, or marginally attached to, the labour force, 1997

Age group (yrs)	Employed				Not employed			Total
	Wage or salary earner	Own business		Total (c)	Unemployed	Marginally Attached	Total	
		With employees	Without employees					
15 – 29	83.3	74.1	75.5	82.4	60.1	32.6	47.1	74.9
30 – 39	85.0	77.2	70.3	82.5	48.6	30.1	38.5	76.5
40 – 44	83.1	72.6	63.9	79.1	52.9	28.2	40.0	74.5
45 – 49	79.7	72.7	61.7	76.2	45.5	19.2	31.5	71.9
50 – 54	74.6	60.8	57.4	69.8	39.5	23.6	32.5	66.0
55 – 59	66.2	60.9	46.4	61.0	35.6	20.2	27.9	57.0
60 – 64	53.6	51.3	34.5	48.6	28.6	18.9	21.5	43.6
Total	81.3	70.5	62.9	78.1	53.2	29.0	41.0	72.4
Number (000's)	6,681.3	540.7	984.6	8,283.4	746.3	764.3	1,510.6	9,794.0

Source: Unpublished data from the ABS Education and Training Experience survey

Participation in training by the unemployed declined for each age group until only 29 per cent of those aged 60 to 64 years participated in any form of training.

In contrast, over four in every five wage or salary earners participated in training. Akin to the unemployed and to those marginally attached to the labour market, participation declined notably for those in the 45 to 49 year age group and for older age groups compared with younger age groups.

Although training participation declines with age for all older age groups, location within the labour market is a more important determinant of whether an individual is likely to participate in training as the proportion of wage and salary earners in the labour force declines with age. The employment status of older people changes with age. These changes are mirrored by changes in the VET system. The number of older full-time workers in VET declines while the number of older people who are self-employed or who have their own business increases. In addition, the representation of unpaid female workers, part-time male workers and those no longer in the labour force undertaking training also increases with age.

A third of all wage and salary earners participated in some form of in-house training with participation rates increasing with age until 40 years of age. A higher proportion of wage and salary earners participated in on-the-job training compared with other forms of training, with participation rates declining after 40 years of age.

Country of birth

Participation in training is strongly influenced by country of birth. Wage and salary earners who reported in the ABS survey that they were born in a country where English is not the main language were less likely to participate in all forms of training compared to wage and salary earners born in Australia or in another English speaking country. The majority of older people in the VET system were born in Australia - almost a third of older students taking vocational courses and less than a quarter of older students in personal enrichment programs were born overseas. Older students from a non-English speaking background are more likely to do vocational studies than a personal enrichment program.

Post-school qualifications

For labour market participants, the attainment of a post-school qualification is a major factor influencing participation in training. Across all age groups it is more likely that a person who holds a post-school qualification will participate in some form of training compared with a person who does not. The attainment of a post-school qualification equalises male and female training participation rates. Women without post-school qualifications have lower training participation rates than men across all age groups. In the VET system, older students with a lower secondary education are more likely to be undertaking vocational programs than personal enrichment programs. Older students in personal enrichment courses have a higher level of year 12 completion however, older students in vocational courses are more likely to have completed post-school qualifications

Training participation rates for people who are marginally attached to the labour market tend to decline with age for those who hold a post-school qualification. However, participation rates are consistently low for people of all ages who are marginally attached to the labour force and who do not hold a qualification.

Industry and occupation

The age profile varies by industry and occupation with some industries and occupations displaying a relatively aged work force. However, it is not universally the case that industries and occupations with a relatively old workforce also have low training participation rates or that industries and occupations with a relatively young workforce also have high training participation rates. Therefore, the industrial and occupational profiles of older workers do not account for the decline in participation in training with age.

REASONS FOR PARTICIPATION IN TRAINING

The reasons why older workers participate in training are different to those of younger people who are at the start of their working life. Information about the reasons why older workers undertake training has been obtained from qualitative research conducted by Barnett (1999) and from an analysis of unpublished data from the 1998 TAFE Graduate Destination Survey (Schueler, 1999).

Barnett reports that older people are more tactical in the selection of skills they wish to learn and how they can be acquired. They are more focused on acquiring skills or on updating existing skills rather than on gaining qualifications. Older workers do not seek formal training as a means of proving their expertise. Rather, older people enrol in formal training programs in order to fill gaps in their overall knowledge. Their credibility in the workplace is established through years of experience and only partially through the qualifications they have attained. In order to meet the training needs of older workers, the training and education system needs to increasingly offer its programs on a modularised basis.

The primary motivation of older people, who responded to the 1998 TAFE Graduate Destination Survey, for taking a course was to gain extra skills for their job. This motivation is reflected in the high proportion of older people (60%) who remained with their employer after completing their studies. Men were more likely than women to stay with the same employer. The majority of workers were employed in organisations with an Australia-wide workforce of more than 100 workers.

The secondary motivation was to gain employment or own a business, followed by interest and personal development. Only 14 per cent of older people undertook training for the purpose of changing careers - older women were more likely to have this objective than older men. Older people show less interest in studying at TAFE in order to gain a promotion or as part of their job requirements than younger people, although men showed more interest in this reason than women.

Most older workers who were studying to gain extra skills achieved their objective. Two thirds of older workers fully or partly achieved getting a better job or a promotion. However, only half of all older graduates who undertook training as a means of finding employment or establishing their own business achieved their objective. Only three in ten of those unemployed before their course found employment after their course and more than a quarter of these people had found a job before completing their course. The low employment rates suggest that TAFE qualifications had little effect on securing employment for older graduates and is further evidence that prior experience is very important for older workers seeking employment.

TYPE OF VOCATIONAL EDUCATION AND TRAINING

Information about the type of vocational education and training courses that older people enrol in has been obtained from an analysis of unpublished data from the 1998 national VET provider data collection managed by NCVER (Schueler, 1999). Older people tend to go to TAFE for vocational programs and to community-based providers for personal enrichment programs. However, both types of training programs offered by community providers become more appealing with age. This is particularly the case for women. Older people are equally likely to be undertaking short vocational programs or nationally recognised qualifications.

Older people target courses that offer basic education, business management and IT. Vocational courses which provide basic education skills, personal development and IT content become more important with age while interest in business, health and engineering has less priority. Interest in the humanities increases with age. Popularity of mathematics and computing with older men also increases with age while interest by women in this area and the hospitality, tourism and personal services declines. Language and literacy studies become more important to older people. Older men increasingly attend personal enrichment training to acquire computing skills and women become less interested in physical pursuits with age.

CONCLUSIONS

The age profile of students enrolled in vocational education and training courses changed markedly over the 1990s as the number of people aged over 45 years of age participating in training increased. It is anticipated that the proportion of older people in the vocational education and training system will continue to increase because of the effect of demographic changes on the Australian population and changes in the nature of work that will require people to upgrade their skills and learn new skills throughout their working life. There are a number of training issues associated with these changes. Many training providers are set up to primarily service younger students. As older clients become an increasing proportion of those undertaking vocational and other training programs, providers will need to make their operations more open and accessible to all age groups. Moreover, the reasons why older people undertake training, and the type of courses they enrol in, differ to those of younger people. Older people are interested in tactical training in that they are seeking to acquire specific skills rather than qualifications. Therefore it is important that the vocational education and training system offers flexible, modularised training to meet the needs of this increasingly important group of clients.

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In search of evaluation truths — representation and abstraction: Pursuing the illusions of objectivity or mirroring the processes of learning?

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ABSTRACT

This paper is about the process of developing a framework for a specific VET evaluation, the evaluation of the Frontline Management Initiative (FMI). The purpose of the paper is to examine the process of designing VET evaluation frameworks, and how we construct knowledge about how others are constructing knowledge. The paper illustrates the process by reflecting on parallel learning experiences during the Perth International Arts Festival.

The paper continues the theme developed for last years conference which proposed that when we evaluate learning processes, "the illusion of the absolute, may obscure meaning." This previous paper examined the discourses of research which influence vocational education and training (VET) researchers to frame research in advance, and often within traditional patterns of *objectivity*. The paper explored why such practices may act to limit the evaluation framework, and the eventual evaluation outcomes.

This paper continues the theme by examining the specific and current process of developing a research evaluation framework for the FMI (EFMI). The FMI is of specific VET interest because it represents the emerging form of CBT, an open market training package, based upon facilitation in the organisational context, and underpinning moves towards continued situated learning and knowledge development for adaptive organisational cultures. It also offers an empirically based reflective platform for this reflection and examination of research practice.

This paper will suggest that evaluation frameworks should be constructed to mirror the emerging meanings of the learning practices that they are examining, rather than be based on a predetermined and politically constructed framework. The paper will then attempt to explore the issues of *mirroring, representation and abstraction* that confront the construction of an evaluation process. The parallel process of artistic construction is used as a metaphor to help explore the meaning of mirroring, representation and abstraction in relation to the evaluation of learning texts and learning practices.

The paper then examines three specific developments that have occurred in the EFMI project methodology. As the evaluation framework has been informed by a greater understanding of FMI practice, it has adapted to more effectively mirror those practices. At the same time, the paper *illustrates* each of these three evaluation framework developments with parallel learning experiences which have occurred simultaneously in the "other world" of artistic experience and learning. These illustrations mirror how changes in knowing in one lifeworld may develop new understanding and meaning in another.

The paper concludes by examining the relationships that construct evaluation frameworks, and attempts to model the relationships that are constructed between learning practice, learning texts and evaluation frameworks. The paper invites ongoing feedback on the EFMI.

INTRODUCTION

As there are numerous opportunities to report research findings, I have always viewed this particular conference as offering the opportunity explore the intractable dilemmas of our research practice, and as a platform to provoke reflexive discourse. This paper is therefore framed to explore and reflect on how *our* practice is formed by examining the generation of a framework for a current project, the evaluation of the Frontline Management Initiative (FMI). The purpose of the paper is to examine the process of constructing knowledge about how *others* are constructing knowledge, the evaluation process.

The paper continues the theme developed for the last conference that proposed that when we attempt to evaluate the learning process, "the illusion of the absolute, obscures meaning." This previous paper examined the discourses of research which influence VET researchers to frame research in advance of field interaction, often within traditional patterns of *objectivity*. The previous paper also explored why such practices may act to limit the evaluation framework and the eventual evaluation outcomes.

This paper suggests that VET evaluation frameworks should be constructed to *mirror* the emerging meanings of the learning practices that they are examining rather than be based on a predetermined framework. The argument presented in this paper is that the process of representing the learning practices that exist, is enhanced when the evaluation framework is informed by and adapts to, the emerging contours of the learning practice. The development of the EFMI process and this paper has occurred simultaneously with the current Perth International Arts Festival. It has been interesting how learning about the FMI and developing a more appropriate evaluation framework, has been mirrored by learning experiences from the art world during the festival period. This paper uses these experiences both to illustrate the key points being made, and to explore how researchers can enrich their knowledge and understanding from diverse experiences. Before pursuing the process of reflection it is necessary to provide a description of the context of the FMI and the brief for the EFMI evaluation project.

FMI AND EFMI: ACCOMMODATING DIVERSITY?

There has been considerable critical comment on the bureaucratic nature of first generation Australian competence based training. Changes in politics of the VET landscape (ANTA 1998) have led to the development of a quasi training market and the associated freedoms of choice, or alternatively the dislocation of learning relationships (Anderson 1996 ; Childs and Wagner 1998). Enterprise based training, emphasis on learning and user choice, have increased the flexibility of programme delivery and given rise to the second generation of CBT training packages. It can be argued that the FMI is the forerunner of these second generation packages. The evaluation of the FMI is therefore not just a pilot evaluation process for second generation competence, but will provide evidence that will be used to shape the next generation of training practices.

In addition, the FMI development programme is potentially a catalyst for a much wider development strategy. Developed from recommendations in Enterprising Nation Report (Karpin 1995), the goals for the FMI were not limited to individual learning but to subsequent and related organisational, business and national benefits. It may therefore be instrumental in developing what could be termed *an ecology of training*. The FMI is of specific VET interest because it represents the emerging form of CBT, an open market training package, based upon facilitation in the organisational context, and underpinning moves towards continued situated learning and knowledge development for adaptive organisational cultures (Barratt-Pugh 1999).

During 1999, a multi disciplinary and geographically dispersed team was assembled and successfully gained the NCVER contract for the evaluation of the FMI (EFMI). Entering such a competitive process involved the research team in the pre project construction of the evaluation framework. As Sonnie Hopkins remarked at last years conference, this was the political reality of our situation when striving to be part of the VET funded research community.

The methodology for the evaluation of the FMI was developed in May and June 1999. It was informed by three main sources. The first source was recent Australian experiences of competence based evaluation projects (Billet et al 1999; Mulcahy and James 1999). The second source was the causal chain outlined by the Karpin report for Frontline Management development linking individual management development to business prosperity. The third source was prior UK based research on competence based management development programmes, notably the Management Charter Initiative (Winterton and Winterton 1997; Leman 1994). The proposed methodology was developed further in July and August 1999 towards a more outcome based evaluation. A broad National survey would be followed by targeted telephone interviews and then in depth case studies in five states. The case studies would be selected to fit into a grid matrix that would provide the evidence to test several stated hypotheses. There would be case studies of both strategic and non strategic approaches to the FMI, and an equal number of case studies would be chosen to represent strategic and non strategic approaches to non competence based management development programmes to provide a comparative framework.

In terms of this paper, the subsequent development of this evaluation framework offers an empirical platform for reflective examination. The evaluation team has during the past months gained a greater understanding of the diversity of FMI practice which was "engineered to be invisible" (Quirk 1999). This knowledge has led to reflexive discussion between the team and the adaptation of the research methodology. To what extent is such an evaluation framework still a representation of a bureaucratic agenda rather than a mirror of practice?

EVALUATION AS A POLITICAL PROCESS

Aspinal, Simkins, Wilkinson and McAuley (1992) state that evaluation is concerned with making judgements about worth and contributing to decision making. Stufflebeam and Shinkfield (1985) indicate that the goals of evaluation are improvement and accountability, where often evaluators may be cast as either historians or astrologists. Evaluation from these perspectives is similar to any other technology, in that it can be used to serve good and bad purposes, and often serves the dominant commercial and ideological interests (Reeves 1997).

Evaluation is an inherently political process defined by the recipient and the purpose ; for whom, and with what agenda. It should also be noted that many VET researchers add their own agendas to this basic framework. Tabachnick (1998) questions the *values* of research, and asks the questions, *useful for what, and useful to whom*? Tabachncik suggests that value *should not be separated out* from the outcomes of research and should be aimed at diverse audiences, not specific influential groups. Selby Smith (1998), with a specific research focus on the VET research area, suggests that research outcomes often *shape perceptions and agendas* rather than providing answers for industry and policy. Selby Smith's review highlights the need for mutual responsibility of researchers and industry in a political decision making process that is complex and often like a *rickety bridge* connecting problems with potential solutions. McIntyre (1998), has been less supportive of research evaluation outcomes, suggesting that far from research providing answers for enterprise training and informing, an inverse relationship exists where research is often used *to justify policy*. In such a way policy informs research rather than research informing enterprises and organisations. It is a process of reinforcing existing *truths*.

> Each society has its regime of truth, its general politics of truth: that is the types of discourse which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements; the means by which each is sanctioned; the techniques and procedures accorded value in the acquisition of truth; the status of those charged with saying what counts as true. (Foucault 1980, 131)

Patton (1990) emphasises this political context of evaluation, and the associated ethical dilemmas, stating that every evaluation is a political act. Hendricks (1990) suggests that evaluation is in fact *research orientated political activity*, as what is always clear in the process is who is the client! It always seems that there are unwritten, unarticulated rules for an evaluation (Argyris 1999), which Patton (1996) suggests are often about reducing the use of the evaluation and limiting input and output.

It is these politics that may actually determine the *method* of the evaluation where researchers are faced with what can either be termed as a consistent and coherent set of theoretical assumptions or a mix and match set of techniques and strategies, depending on your political perspective (Morse 1996). It is however unlikely there is one best method of approaching the evaluation.

> We are attracted to the idea that there might be an Occam's razor, a single statistic that will cleanly and mechanically determine which among various models should be preferred. (Winship 1999, 3)

Evaluation methods may therefore be more a product of political forces than a logical process of matching appropriate techniques to situations. The same political pressures that encourage the early framing of evaluation projects and shape the evaluation methodology, may also influence the outcomes of the evaluation. While there may be indirect pressures to support certain assumptions in the evaluation, the study may find more direct pressures to at least provide some *certainty* in the evaluation, if only to prove the value of evaluation project itself. Such a search for certainty may be seductive. Mayne (1999) indicates that such political pressures should be resisted.

> We need to accept the fact that what we are doing is measuring with the aim of reducing the uncertainty about the contribution made, not proving the contribution made. 10

Mayne (1999) suggests that even without the introduction of a particular program, the observed changes in outcomes may have occurred, maybe at a lower level, or maybe later on. Political pressures for more certain outcomes should be replaced with a more tentative approach to evaluation.

> Rather, we need to talk of reducing the uncertainty in our knowledge about the contribution of the program. From a state of not really knowing anything about how a program is influencing a desired outcome, we might conclude with reasonable confidence that the program is indeed having an attributable impact; that it is indeed making a difference. We might also be able to provide a reasonable estimate of the magnitude of the impact. 3

Tierney (1999) similarly encourages us to resist political pressures to become academic sleuths in search of *truth* and instead to report the inconsistencies of the practice being examined rather then the more politically acceptable congruences. He suggests that the challenge in the process is to look at how particular interests are supported denied overlooked or occluded. Funnel (1997) also urges evaluators to resist political influences that direct the evaluation process towards certainty in outcomes.

> The purpose of evaluation is not to make a statement about absolute truth, but to lay the working assumptions of program staff on the table. 6

Jonassen (1991) suggests that more constructivist evaluations seek to escape such political agendas, by replacing negotiations for meaning with the clients, by negotiations for meaning with the subjects. There appear to be considerable political pressures that shape the evaluation purpose, methods, style and outcomes. There is every possibility that they will frame the process and direction of the evaluation study. The argument presented here is that the evaluation framework should be shaped to mirror the learning practice that it is evaluating, by continually being informed by that practice. The paper will explore how the EFMI evaluation framework has been informed by FMI practice.

EVALUATION AS MIRRORING, REPRESENTATION AND ABSTRACTION

If evaluation frameworks are often framed before the project commences in order to gain funding and support, it is likely that the existing political influences will frame the project methodology. Sharp (2000) suggests that engaging the participants with the framework and developing interaction can assist in developing the framework so that it more effectively mirrors the actual practice. Alkin (1990) describes this as a cooperative approach, where evaluators work closely with the programme participants.

Mirrors are of course not ever a *real* representation. We forget that we never see our own face, just a reversal, as we may forget or be blind to factors shaping the evaluation mirror. In the case of the EFMI, the original evaluation framework reflects the causal chain embedded within the FMI project and is based on, individual, organisational and business benefits. Could it be that an evaluation framework based upon examining that causal chain may end up mirroring what was supposed to happen, rather then what is happening? Such an evaluation may actually end up mirroring representations or abstractions of practice, rather than reflecting the actual practices that have developed. Sobel (1998) indicates that the major journals are filled with competing causal theories that may detract from what should guide the development an evaluation framework.

There is no doubt that processes are at least partially causal but ....it is not so clear that the casual aspects of these phenomena are of primary interest....a description of the sequence may be more important. 14

Abbott (1998) suggests future readers will find humour in research which suggests that,

> ...the world was the way it was because social forces and properties did things to other social forces and properties they called them variables and hypothesised how they affected each other through causal analysis. 149

Pearl (1998) adds there is a need to revitalise the approach to causal analysis with the emphasis on interpretation and underlying assumptions. The obsession with causality misses the clues in rich description (Abbott 1998). To what extent should the EFMI evaluation method, based upon a previously conceived causal chain be reshaped to reflect current practices?

At this point it is important to introduce the Perth International Arts Festival (PIAF) to the discussion. Simultaneously with thinking about the evaluation framework, the arts festival mirrored similar investigative opportunities, and also provoked thinking for new meaning. One of the central exhibitions of the festival "H2O" explored the same issue of mirroring, through art rather than evaluation, and suggested that there was an oscillation between the polarities of abstraction and representation (Stringer 2000). This reflected the similar debates between the value of causal chains and rich descriptions, the issues of competence as a representation of practice, and of FMI texts as an abstraction of practice. The exhibition explored the inherent duality and synchronic relationship of representation and abstraction providing *a script crowded with exceptions* (Stringer 2000). In the "Lure of Paris" within the H2O exhibition, Stephen Bush presents a large totally sepia canvas. It realistically portrays a wild ocean crashing on a rugged coast line. Abseiling down the cliffs are three 1920 style Ba Ba the elephants, complete with crowns. The irony here is that the juxtaposition of representative forms provokes abstract conceptualisation. Should evaluators seek to represent or abstract meaning?

Sometimes search for definition illuminates the inherently nebulous nature of our symbols. Representation is the presentation to the mind (Delbridge et al 1998), a symbolic expression or construction within the prevailing ideology (Murfin and Ray 1997). Abstraction is about retaining representational characteristic and expressing them through other forms (Delbridge et al 1998), not to create clear images but to convey concepts (Murfin and Ray 1997). The irony is that these polarised processes strive toward to similar goals, that is the interpretation of meaning, as does the evaluation process. To what extent do our needs as evaluators to represent practice and at the same time provide abstracted recommendations, have a similar synchronic relationship?

Lombardi (1999) suggests that somewhere in our subconscious, experiences transform from representations to fragmented abstractions, while for Schwabsky (1998), the abstract can be a little of each, both a representation of reality and a sample of its processes.

Having established previously that there is a political frame for each evaluation, it is equally true that there is no research without presupposition (Cavanagh and Rodwell 1992). Each individual researcher conducts research through a particular lens which has a bearing on what is seen, recognised as significant and ultimately reported (Wideen et al 1998). Our attempts to represent practice, or provide abstracted concepts will be coloured by our own agendas and the diversity of our individual perceptions.

Just as competence is both an abstraction and a representation of vocational practice, a rarefied form, so the evaluation of vocational practice mirrors the same contradictions. As John Mayher (1990) suggests,

> ...there is no knowledge without a knower. 79

Mayher forces us to recognise that our production of knowledge, either as learners, or in this case as evaluators, is inherently an individual or social process of creating beliefs about causal relationships. From Mayher's perspective there really is little knowledge lying out there, waiting to be found. The concern should be that when we attempt to represent or make abstractions from practice, certain beliefs may be excluded, and that some beliefs expressed may not be shared by all. In this way the texts of the learning technology, the policies, guidelines and competences only provide us with representations and abstractions of the actual practice. They may obscure some of the realities of the actual practice, in the same way that organisational *Mission statements* may not reflect the every day experience of employees. The caution for evaluators is that we too seek meaning though our own particular *lens*, and should be aware of, and declare those interests.

THREE EVENTS OF LEARNING

It was such thinking about the political nature of representation, abstraction and the process of mirroring which prompted a re-examination of the evaluation framework. How could the original framework, pre-framed for prior acceptance, be developed with transparent motives to represent and mirror practice and provide a platform for abstraction? The paper now explores three specific developments that have occurred to the project methodology as the evaluation framework was informed by a greater understanding of FMI practice. Concurrently the paper illustrates how each of these three evaluation framework developments *mirror* new meaning that was generated during the PIAF. How change in knowing in one lifeworld develops or reflects new understanding and meaning in another. As Manen (1997) suggests this exploration of method,

> ....is not to claim that, above others, there is one correct or superior mode of inquiry to ascertain the truth, other meaning of something. There is no true meaning just as there is no uncontested truth....Rather to discover suppositions that hold promise......become sensitive to the principles that may guide our inquiry.

The first learning

In the "Angel Project" by Deborah Warner, the viewer follows a city walk discovering angels, representations of angels and angelic forms, in various locations, from visual and written clues and in the process discovers the city. The viewer's preconceptions about the event, the city and angels are reshaped by the experience.

This experience mirrored the process of gaining an understanding of the FMI. If the traditional patterns of prior research in the UK were followed (Winterton and Winterton, 1997), the categories pre-defined in the framework matrix would be *filled* with case studies, even though the prior research had resulted in a near desperation sampling and questionable case study allocation processes. The teams *preconceptions about the project* had been informed by these prior evaluation practices. Continuing to follow the same practices might be dysfunctional to the evaluation process. The team's perceptions of FMI had now been *reshaped* by their local Australian experiences. The decision was made that the pattern of FMI adoption would provide a more effective *frame* for case selection than such a predetermined matrix. The FMI project would therefore be used to inform the evaluation method, the experience to reshape the conceptualisation.

The pattern of adoption within the FMI has not just been driven by the variety of enterprises, but by the negotiated delivery strategies. The FMI as a learning technology provides a fluid framework that has and is being interpreted by both traditional instructional design approaches (Merrill et al. 1990) and more constructivist approaches. The flexibility offered by the FMI would appear to invite more constructivist approaches, breaking away from a curriculum that teaches that *what we learn is a replica of a well structured world...and that this independent ontological reality determines our experiences* (Jonassen 1990). However even constructivist approaches belong to a very broad church with social and radical cognitive extremes (Tynjala 1999). The FMI process is therefore liable to exhibit similar diversity and the evaluation framework should be developed to mirror such diversity.

The second learning

In "Kayassine" by Les Arts Sauts, the audience lies within a purpose built inflatable dome, high arched with gantries, and finds that through the smoke, bleak cello and obscure vocals, futuristic figures swing and perform aerial ballet. A combination of known elements produces an experience that could not have been predicted.

The FMI was similarly constructed with *known elements*, but it seems it has grown in unexpected ways. The frame for the evaluation was based on the causal chain evident in the Karpin report (1995) and outlined in abstracted form by Leman (1994). However it became evident from the initial interaction with FMI users that this learning technology had been developed by users into some configurations that had not been *predicted*. The use of on line delivery, the involvement of Universities and the linking to non competence based courses indicate interesting developments. It suggested that what should be examined was not just what the initiative was intended to be, or how it had been developed, but also what it might be. This could be expressed as trying to achieve an *ecology of evaluation*, developing the scope and longevity of the evaluation. As activity theory demonstrates (Engestrom 1993), a focus on the immediate learning activity discounts the richness and dependence on the surrounding growth relationship patterns. It is impossible to predict how a particular initiative will develop with complexity of interface interactions. Trist and Emery (1990) term such dilemmas as the *causal texture* of the environment.

> The main problem with studying organisations is that their environments change, their causal texture. 72

There is an inseparable web of relationships which creates such developments when an initiative is seeded in the causal texture of the environment (Wideen 1998). The evaluation framework may benefit from investigating what is happening rather then what was expected to happen.

The third learning

In "The Messenger " by Bill Viola, a Christ like figure emerges from, and then descends into, a translucent watery void in slow motion, washed by his own waves and surrounded by his own air bubbles. This large video installation had a compulsive aura due to the immense size and multi sensory impact. It demonstrated how the use of current technology was a deep resource for current artists.

Perhaps artists and observers should focus more on innovative practices rather then traditional forms of representation? The framework for the EFMI project had been based on previous studies that made comparative analysis between FMI sites and non FMI sites. On reflection it appeared that considerable resources had been allocated to an analysis of past practice, in search of comparative *proof*. This seemed to deny the opportunity to use the resources to complete a more detailed exploration of the new *technology* of FMI. If a change had occurred, perhaps there was more learning in exploring that change, rather than re-examining past practice, in some dubious search for proof of improvement. The move away from using a baseline control group towards a greater case study depth would provide the team with far more vibrant narrative from case study material. Atkinson (1997) argues for the rich qualities of such interview material, *the use of narrative and thick description.*

> Story provides a simple agent through which we can communicate complex meaning. (Snowden 1999, 1)

This of course steers the evaluation process towards the representation of diversity and away from the abstraction of singular knowledges. Emery (1997), cautions against more clinical approaches to evaluation which preserve the existing social hierarchies, and where,

> Sound knowledge, truth, is found by eliminating the idiosyncratic. 233
>
> The advancement of knowledge is seen quite literally as a ladder of abstraction . . . abstracting the universal from the particular. 243/4

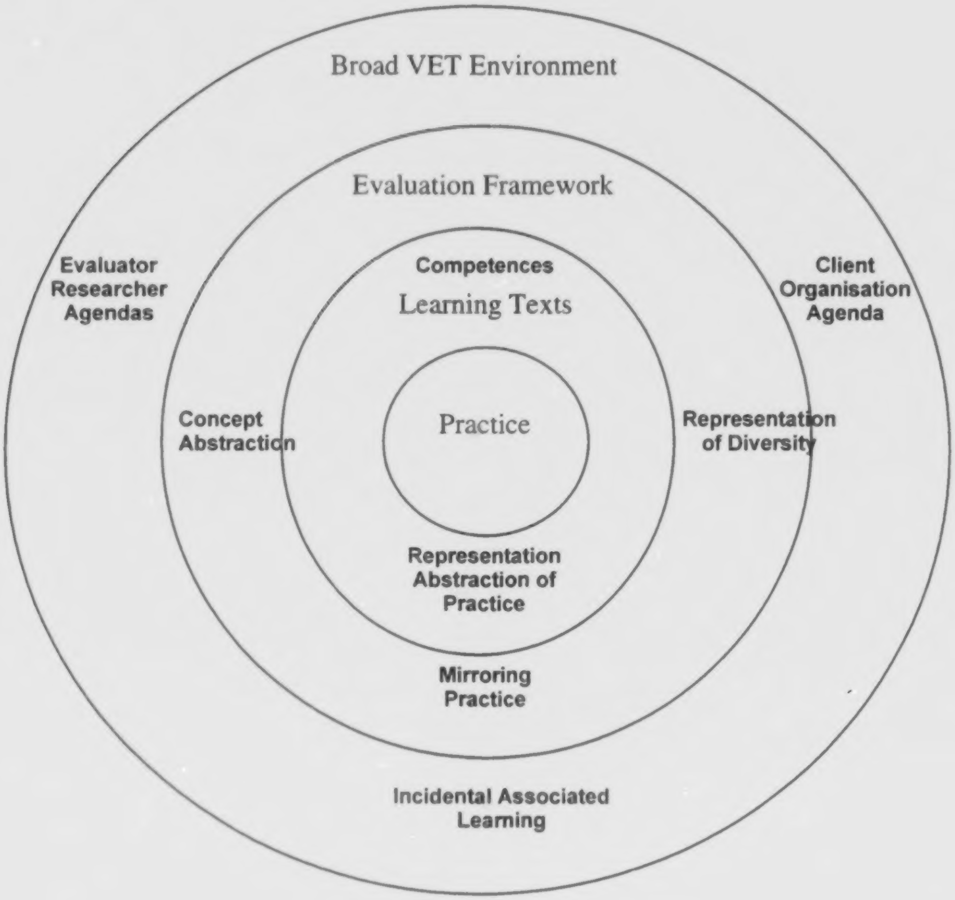
Emery (1997) insists that our role is to represent the confusions that are found within the evaluation and learning processes, rather than to try and construct a pattern of seeming order.

> .....finding order in the symbolic representations of our observations is a very different kettle of fish particularly when those ordering principles are contaminated by the ordering systems of our symbolic representations. The mind is not a clean slate and the perceptual world confusing. 247

Thick description from case studies attempts to preserve the subject's meaning. However Luke (1997), a recognised supporter of such analysis, still describes it *as an academic and political activity*. Luke (1996) asserts that such analysis has the ability to show the power relationship in apparently mundane texts at work. Luke (1996) cautions that the analysis of the discourse of practice, can tell us more about what is valued by the evaluators in learning, than the subject practitioners. Capturing more narrative data does not totally remove the influence of the researcher agendas.

MAPPING THE CONTEXT OF THE EVALUATION FRAMEWORK

The dynamic tension between practitioners, government agencies and researchers interact to construct and develop evaluation frameworks (Barratt-Pugh 1999). This paper has attempted to extend the examination of this process through the initial stages of the project. The development of this evaluation project has provided an opportunity to examine how pre-framed evaluation frameworks may be adapted to mirror the practice which they are examining. Pre-framed evaluation processes are more likely to mirror the representations or abstractions of the actual practice, the policies, procedures and guidelines (the learning texts), rather than the practice itself. It is also evident that evaluation frameworks will always mirror the political agendas of both the clients and the evaluators. The paper has also sought to display how *other* learning from parallel but discrete contexts can contribute to the evaluation development. The relationships that have emerged in this evaluation development process are *modelled* in the following diagram, and portrayed as *layers* surrounding *the practice*. From the perspective of the evaluation framework, the *Learning Texts* act as an opaque shrouding of practice, while the *Broad VET environment* exercises political influence, but also provides the opportunity for *reflection*.


Broad VET Environment
Evaluation Framework
Competences
Learning Texts
Evaluator Researcher Agendas
Client Organisation Agenda
Concept Abstraction
Practice
Representation of Diversity
Representation Abstraction of Practice
Mirroring Practice
Incidental Associated Learning

IN CONCLUSION

As evaluation explores practice, this paper has attempted to explore the evaluation process. The paper has cautioned against frameworks constructed around the simplicity of cause and effect relationships, as in learning environments, VET researchers confront the intractable dilemmas of human interaction. It has also examined the difficulties of mirroring practice through representation or abstraction within an inherently political establishment of views and meaning which is directed by the agenda of the learning texts, the evaluation clients and those of the researchers themselves. Argyris (1999) describes them as *the unwritten rules of research construction*.

The paper has also sought to introduce the existence and influence of other worlds in the VET researchers environment. Here there is a message to all VET researchers who struggle to find another life. We may plan to widen our perceptions by inviting diverse comment on our own practice, but ironically unless we invest some of our time exercising our minds in other domains away from our VET research obsessions, our work may be the poorer without such reflected light.

Finally the paper has sought to look at the evaluation process beyond the frame of the mirror. The challenge is to make evaluation processes more than just a reflection of history and the weighing of past practice, and to view evaluation as an investment which will contribute to future learning technologies. Much of the 90's CBT VET development was rooted in UK precedents just as much of the management learning and research in Australia has been rooted in American precedents, a prisoner of their gurus, texts and culture. Clegg (1999) chastised Australian management researchers for determining value, and therefore their emerging culture, in terms American yardsticks, and in so betraying the opportunities of *this unique discursive space*. There is evidence to suggest that with the emergence of more flexible CBT approaches the representations and abstraction of practice upon which new Australian VET forms are based is more reflective of Australian diversity. The same opportunities present themselves to VET researchers with every study of Australian practice, to develop a unique VET future.

My hope is that the team will continually be influenced by a wider team of evaluation participants. Perhaps the final contribution will not be so much justifying or modifying the FMI scheme itself, but in the contribution to the third generation of training technologies, what ever they may be, and to placing the evaluation of training activity as a significant player in the development of organisational cultures.

The intent of the evaluation process is to maintain the same openness and inclusion, the same "strategic impression" that underlies effective flexible learning technologies like the FMI, so the EFMI framework will be generative. Only by involving a variety of contributors and critics will the team assist in legitimising the outcomes and knowledge contributed by the project to the wider management and practitioner community. As Patton (1996) suggests,

> the most significant impact of the study ....that we really had not realised, was on the subsequent decisions on other programmes. 36

I wish to acknowledge the contribution of the EFMI research team, specifically Dianne Mulcahy in this instance, in providing the stimulation to explore the ideas within this paper, and an unknown reviewer for shaping the final structure.

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For further details of the project Evaluating the Frontline Management Initiative Home Page:
http://www-business.ecu.edu.au/efmi/index.html
or
E mail Llandis Barratt-Pugh Project Co Director: l.barratt_pugh@ecu.edu.au

Competency based assessment — one-minute wonder or here to stay?

Practitioners' attitudes to competency based assessment and the complexities of implementation.

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Competency based training and assessment was introduced to Australia in the early 1990s through the push to restructure Australian industry and the National Training Reform Agenda. Industry determined competency standards became a central feature of the National Framework for the Recognition of Training and the competency based education juggernaut was launched.

Vocational education providers developed competency based curriculum and teachers were trained in the concepts of the collection of evidence to make this assessment. With the introduction of Training Packages, the emphasis on the collection of evidence to assess a candidate's capacity to meet industry standards has taken even more prominence. But how successful has the movement to implement this form of assessment been in industry and among what are now known as Registered Training Organisations?

There have been various stocktakes and surveys of the progress of the implementation of competency based training (CBT) since its inception. Some have looked broadly at the contribution competency based training is making to the development of an adaptable and flexible workforce (Billet et al, 1999) and the quality and flexibility of vocational learning and working life (Mulcahy and James, 1999).

Misko (1999, 59) concludes that training providers are trying hard to implement CBT in their learning environments and using innovative ways for dealing with problems that were not envisioned by the developers of CBT policy and adapting it to suit their local conditions. Teachers are taking the new requirements seriously. They are reviewing the ways in which they have always delivered training and have made alterations to their practices. However Misko also concludes that teachers are still experiencing problems with implementing the major features of CBT and that the introduction of Training Packages may have added another element of confusion in the process of implementation.

This paper draws on the results of two recent projects conducted by the Vocational Education and Assessment Centre (VEAC) which examined current attitudes and practices of industry representatives and practitioners both nationally and in NSW, specifically about assessment.

In both of these projects respondents were particularly concerned about quality of assessment and the issue of consistency in assessment judgements. Both projects also reported great concern over the issue of grading and the desire for a return of educational policies which support grading of assessment decisions. The experience of VEAC has been that there is still confusion amongst practitioners about the key features of the implementation of competency based assessment and that further action to support the implementation of competency based assessment needs to be considered.

NOT JUST FALLING OVER THE LINE...
A NATIONAL SNAPSHOT OF COMPETENCY BASED ASSESSMENT

In 1998 VEAC was commissioned by NCVER to conduct an evaluation of the effectiveness of competency based assessment for a range of users (Dickson & Bloch, 1999). A full report of the research is available.

Three hundred industry representatives, employers, trade unions, educational managers, trainers, teachers, trainees and students and other users of competency based assessment (CBA) were surveyed from all states and territories. Respondents were generally satisfied with CBA but considered certain aspects required improvement.

Four issues emerged consistently for practitioners. These were a desire for grading of results, the need to assess knowledge as well as skills, concern about quality of assessment systems and competency standards, and the need to review resources.

A major challenge facing respondents was the need for strategies to bridge the gap between competence and excellence. Many learners, industry training advisory bodies (ITABs) and teachers, trainers and assessors considered graded assessment as a way to motivate employees/learners.

Respondents feared they were losing the teaching and learning of knowledge through competency based training and assessment. The solution identified by practitioners was that competency standards should adequately reflect the need for assessment of underpinning knowledge, skills, attitudes and ethics.

Participants in the evaluation considered that significant improvements could be made to their own practice and improve the quality of CBA. Factors identified as contributing to quality were ensuring the CBA system meets the users' needs, using the right assessors, getting the paperwork right and the quality of the competency standards.

Teachers, trainers and assessors indicated that they were aware of the large number of resources available to them but felt that very few were appropriate and usable. Employers and ITABs suggested that careful consideration of how people and paper resources were being used would add value to existing CBA practice.

This research concluded that respondents have acquired a high level of understanding and more sophisticated uses of CBA which has enabled them to articulate their concerns and suggest strategies for improvements. However the challenge remains for educational policy makers to deal with the issues raised.

MAINTAINING THE QUALITY — AN INVESTIGATION INTO SUMMATIVE ASSESSMENT PRACTICES

An investigation into summative assessment in TAFE NSW was conducted in 1999 by VEAC in conjunction with the TAFE NSW Educational Services Divisions (ESDs). (Tower, Bloch & Harvey, (to be published 2000).

The project aimed to investigate and evaluate the educational, social, cultural, political and economic influences on design, development and implementation of summative assessment in TAFE NSW.

TAFE NSW enrols 440,000 students each year across NSW in over 1,100 major courses and qualifications in all major vocational industries and occupations. While TAFE NSW operates as 12 semi-autonomous Institutes, TAFE assessment policy and practices apply statewide. TAFE NSW qualifications are seen as having high status and are respected in industry and the community.

These qualifications range from short course programs recognised as a TAFE or Institute statement through to Certificate and Diploma level courses which lead to the award of a nationally recognised qualification issued under the Australian Qualifications Framework (AQF). All modules fall into one of four assessment categories.

These categories range from Category A where modules include a centrally set and centrally marked final examination through to Category D which are assessed by locally set and marked assessment. Where centrally set exams were previously the most common form of assessment in TAFE NSW they now account for approximately 8% of total assessment events.

Since the establishment of the four categories of assessment over 20 years ago as part of the maintenance of quality across the system, the political climate in Australia has shifted. Increased levels of industry based training as well as public education operating within a competitive environment form part of this shift.

Like other aspects of TAFE curriculum and delivery, assessment is subject to the influence of government policy, industry needs, occupational health and safety requirements (including legislation), educational best practice, economic and organisational constraints, as well as social and cultural influences.

CONTEXTUAL FACTORS BEARING ON THE ASSESSMENT SYSTEM, PROCESSES AND PRACTICES FOR A REGISTERED TRAINING ORGANISATION

Training packages and implications for assessment

The introduction of the National Training Reform Agenda and its successor, the National Training Framework, (NTF) and the implementation of competency based training and assessment have been among a number of influences that has seen assessment in vocational education and training (VET) shift away from centrally set exams towards locally set activities.

Training Packages are now the cornerstone of the National Training Framework. They include sets of national industry determined competencies, qualifications and assessment guidelines as the endorsed component. They do not include curriculum or specified approaches to assessment as endorsed components required to achieve a qualification.

Current vocational education and training policy increasingly seeks to have more training conducted and assessed in the workplace with the goal of having workers trained under Training Packages to be workplace competent rather than just workplace ready. Most Training Packages assume learners will have access to a workplace in order to acquire and demonstrate some units of competency on the job. Training Packages may stipulate a requirement for assessment to be conducted in a "real life" work environment, or at the least in a simulated work environment such as off the job at TAFE or another registered training organisation (RTO).

In many areas assessment schemes or plans have had to involve more practical and simulated assessment as part of collecting evidence, with cost implications for the organisation as a whole, and for individual assessors. Vocational educational institutions are having to develop strategies to manage and provide guidance on these changes, including options for on the job assessment by qualified workplace assessors, reviewing of evidence gathered in the workplace and workplace performance modules to allow such evidence to be recorded.

Principles of assessment

TAFE NSW assessment is governed by four key national principles. It must be fair, valid, reliable and flexible. There is a public perception that reliability can only be achieved through the use of common assessment events - such as through Category A exams. The introduction of CBT may be slowly bringing about a shift in this perception. When assessment is conducted against learning outcomes (linked to industry competency standards), these outcomes should be achievable via different mechanisms, yet still be reliable.

This coupled with the cost factor of setting Category A and B exams led to the accreditation of many TAFE NSW modules as Category C or D. It has been suggested that the increased use of Category D assessment has led to poor assessment practices by some teachers, with decreased validity, reliability and fairness of assessment outcomes. This could be partly due to a lack of understanding of CBA principles, as well as poor understanding of test construction, appropriate use of test items etc.

Some curriculum designers have suggested differing local approaches to assessment should be counteracted by state or institute wide controls to prevent students from "shopping around" for the "easiest" college, which is alleged to be common practice in some areas.

Validity and reliability also impacts on TAFE's approach to assessment. In Category A and B exams the use of an appropriately qualified setter and reviewer should ensure that valid assessment events are developed. There is evidence however, to suggest that the cost of this "content validity" is high and logistically difficult to manage. Category A exams nevertheless, do allow an analysis of state-wide activity and provide an opportunity to evaluate results across the state.

Some curriculum resources include sample or actual assessment events (even for Category D assessments). Validated item banks for assessment can provide a range of events for assessors.

The initial costs for such banks (especially if computerised) can be high, but where acceptable to industry and teaching staff the use of these item banks fosters both validity and flexibility. With validated item banks the need to use a setter every time an exam is required is reduced. As flexible entry and exit into courses increases, the need for assessment to be conducted flexibly will also increase (i.e. outside exam periods). Item banks may provide a cost-effective solution in the longer term.

The issue of construct validity (how well the evidence supports the claims about the competency being measured) has also influenced shifts away from Category A and B exams in some areas. In the Retail Trades area for example, there has been a move away from Category A and B exams because of the higher level of literacy demands these place on candidates during assessment. In competencies where literacy itself is not a requirement, an assessment method that depends upon it is unfair as well as being less valid.

Industrial and legislative influences

RTOs needs to be responsive not just to government policy changes, but also to the changing needs of industry. Industry standards, codes of practice, regulations and legislation have all impacted on TAFE NSW assessment practice in most sectors.

A number of industries serviced by TAFE NSW have licensing requirements. These include the Aviation, Legal, Real Estate, Hairdressing, Electrical Contracting and Building Industries. In these fields, conditions of licensing may include the completion of a TAFE qualification with assessment activities approved by the licensing body to ensure candidates are adequately tested on knowledge and skills to meet the standard required for the license. The NSW Department of Fair Trading, responsible for the issue of licenses in the home building sector, including plumbing and construction, has outsourced the assessment component of licensing available to non-TAFE graduates to TAFE NSW via its Building Industry Skills Centre. The Joint Coal Board also conducts assessment for licensing in conjunction with TAFE NSW.

With the introduction of CBT, TAFE NSW moved to ungraded assessment in a large number of Electrical Trades modules, however because of concern about standards in the industry, modules whose content was directly linked to licensing requirements retained Category B status with centrally set assessment events conducted across the State. In Hairdressing, the industry perception of Category A and B assessments having greater reliability and validity has ensured their retention.

Some modules which have a critical component, such as some of the safety related content of electrical trades, or quality assurance aspects of book-keeping, are pass/fail - and may require a 100% pass mark. There are no degrees of competence in meeting critical industry standards.

MAINTAINING THE QUALITY — METHODOLOGY

The project was undertaken in three stages. A literature review was conducted and the project's scope determined. Surveys were conducted with teachers, educational managers curriculum developers, industry organisations, professional associations, licensing bodies and regulatory authorities. Additionally, focus group discussions with TAFE staff and students were conducted to explore a range of issues arising from the surveys. Implications of the research for TAFE NSW were drawn from the analysis of the data.

The initial scoping process involved two focus groups (one of TAFE staff, the other of industry representatives) to determine the range of issues impacting on, and relevant to, the TAFE examination system - and so enable the design of the research project brief. Both groups were asked the 'focus' question: *What do/does stakeholders/your industry want from the TAFE assessment system?*

It is interesting to note the different emphases of these groups. Below is a comparison of the six most significant issues for each group, in each group's order of priority:

TAFE group	Industry group
1. Consistency in high standards –rigour	1. Currency of technical knowledge and skills maintained by assessor
2. Assessment relevant to curriculum and workplace practice	2. Achieving standardisation of assessment across the state
3. Objectivity – for students and teachers	3. Results are meaningful – industry wants an indication of level of achievement, more information on what student/employee can actually DO
4. Evidence – record needs to have high level of integrity and objectivity that outsiders recognise.	4. Accessibility to assessments – alone and in Training Packages
5. Appropriate QA/QI measures in place	5. Assessment tasks relate to practical work skills – need range of sources of evidence
6. Appropriate sampling and range of evidence. Summative assessment needs to cover the range of the course. Assessment needs to reflect reality of workplace.	6. Qualifications are theoretically or practically based.

MAINTAINING THE QUALITY — RESEARCH FINDINGS

The project had as its focus the identification and analysis of a range of influences upon summative assessment practices. The research findings clearly demonstrate the complexity and interconnectedness of many of these issues for the TAFE NSW system.

Surveys and focus group members elicited general agreement by respondents on many issues. They supported the need for assessment occurring in a combination of TAFE classrooms and the workplace, the importance of assessing underpinning knowledge and skills and the need for a variety of assessment approaches.

The following broad issues were considered to be of the most fundamental significance to the stakeholders:

- quality assurance of TAFE summative assessment (including assessment categories, consistency in assessment, workplace assessment and Training Packages)
- reporting of results and achievement (grading or competent/not competent).

Quality assurance — assessment categories

Data analysis revealed that:

- Category C emerged as the most favoured by practitioners and curriculum designers (84% and 80% respectively).
- Category D was considered highly suitable or suitable by practitioners (74%) and curriculum designers (76%). At the same time significant quality assurance concerns regarding local assessment were expressed by both survey groups and the focus groups.

Quality assurance — consistency in assessment

While a large proportion of survey respondents indicated that Category D was a more suitable assessment mechanism than Category A, many expressed concern about difficulties related to the perceived inconsistent standards within Category D assessments. The industry survey respondents also expressed concern about Category D in terms of its potential lack of consistency across the state.

Some respondents suggested strategies for improving the consistency of assessment based on more teacher professional development and local monitoring and verification processes. Other suggestions emphasised a continuing reliance on centrally set and marked exams or a greater emphasis on verified computer-based item banks and other standardised assessment events. Clearly there are no simple answers to improving consistency. We need to bear in mind however, the question of how much of the assurance of quality in assessment can be based on regulation and standardised procedures, as opposed to developing teachers as skilled, confident assessors.

Quality assurance — workplace assessment and training packages

Although a high percentage of responses from all surveys indicated that TAFE NSW assessment should be carried out in both the workplace and a TAFE environment, other evidence from the research suggests that, in reality this is still not occurring to a great extent.

There are many reasons for this including accessibility of workplaces for institutional based students and the prohibitive cost of conducting assessment in the workplace in some industries.

Respondents to the survey and focus groups showed there remains an undercurrent of confusion, lack of familiarity and discomfort about the basic concepts of evidence-based assessment incorporating assessment in the workplace. As reported in research from other sectors of VET (for example Smith et al, 1998), teachers are still expressing confusion about the concept of competence. The paradigm shift from 'precision-marking' to ascertaining competence was problematic for some teachers.

Reporting of results and achievement

The research indicated that despite the move towards industry competency standards over the past decade, there is still a strong desire among VET practitioners to recognise students' achievements by some form of graded result.

Industry (ITABs, unions and professional organisation) responses to this research are not conclusive. However, in contrast to the TAFE respondents, they indicated a preference for reporting TAFE results with the terms 'competent/not yet competent', with some support also for grading and marks. Previous research reported here showed support for grading by industry groups. (Dickson & Bloch).

CONCLUSION

While there has clearly been major acceptance and adoption of the concepts of competency based training and assessment in Australia, some issues remain to be resolved by RTOs, industry and governments.

Concern about assuring the quality of assessment and the uneasiness expressed about consistency in assessment have featured in both the research projects outlined here. Assuring the quality of assessment in a large RTO such as TAFE NSW is a complex process. Consistency of quality between RTOs has also gained recent prominence with the need for mutual recognition of providers. Schofield (1999, 46) in her review of the Tasmanian Traineeship System suggests that the issue of consistency in assessment may be illusory - a feature of a competency based system where those assessed as competent may display varying degrees of capability. However practitioners, education managers, industry and students have wide ranging views. There is obviously room for further exploration of this matter.

Similarly, practitioners and industry representatives continue to raise the reporting of results and the recognition of student achievement when surveyed about the progress of CBA. These two areas need further examination and consideration in the next phase of the implementation of competency based assessment in Australia.

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TAFE as a pro-active partner in VET in schools

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INTRODUCTION

This research study originated in the Primary Industries and Natural Resources Educational Service Division of TAFE NSW. The Western Research Institute, Inc. was commissioned by them to carry out most of the research component of the project. It focuses in particular on the relationship between TAFE NSW and schools, and was based on a proposition that mentoring was an appropriate definition for significant parts and numbers of those relationships.

METHODOLOGY

It was determined by the steering committee that a qualitative research methodology should be adopted. The suggested methodology in the project brief was to include:

1. cataloguing of existing VET for Senior Secondary School Students curricula and related TAFE NSW curricula together with identification of existing articulation and credit transfer arrangements for the identified curriculum areas.

2. conducting a literature review on mentoring.

3. interviewing participants in identified mentoring models through a pilot interview phase, pilot assessment phase and completing an extended interview phase.

4. conducting focus groups involving cross representation from Boards of Studies, TAFE NSW Educational Service Divisions (ESDs), Curriculum Managers' group, VET for Senior Secondary School Students Committees, Vocational Programs for Schools Unit, Training and Development Directorate, TAFE NSW Institute representatives, District Superintendents and appropriate schools representatives.

5. collating the above data into a report which includes recommendations for the implementation of mentoring strategies which use identified TAFE NSW resources to support and enhance the development and delivery of VET for Senior Secondary School Students.

With the exception of the first step, which was modified to become a brief investigation of the background to the development of VET programs for secondary school students, this methodology was adopted. However, as the project developed, there were some changes in focus informed by the outcomes of earlier steps.

THE NEED/IMPETUS FOR VET IN SCHOOLS

What has become a major priority in the provision of post compulsory education had its origins in a range of commissioned reports in the late 1980s and early 1990s. (Ashenden, 1989, Finn, 1991, Carmichael, 1992, Mayer, 1992)

A number of factors built towards what was to become known as the National Training Reform Agenda. Each was significant and the challenge was to bring them together and address them in a meaningful and manageable way which would enhance the opportunities available to senior school students and school leavers, and improve Australia's involvement in vocational training radically vis a vis other OECD countries.

In the early 1990s Australia ranked second lowest among the OECD countries in the proportion of post-compulsory students involved in vocational education and training.

Australia had relied heavily on the British tradition of craft apprentices that involved paid jobs linked to a contract of training. Apprenticeships in this form had been the largest component of Australia's limited vocational preparation with traineeships emerging as a recent alternative.

Youth employment patterns were also becoming a driving imperative for Governments of the day with dramatic increases in youth unemployment. In contrast to the healthy level of six out of ten teenagers in full time employment in the 1960s, the 1990s saw this plummet to a disturbing rate of less than one in five. Those with minimal skills suffered badly because of structural changes to the economy, which inevitably impacted on the labour market.

Over a period of 30 years from the 1960s to the 1990s, the number of full-time jobs in the youth labour market had been steadily eroded and by 1993 only 14% of all 15-19 year olds were involved in some form of vocational preparation.

In 1994 Dusseldorp Skills Forum (1999) figures revealed that retention rates had risen from 37% in 1982 to 77% in 1992 and were predicted to reach 95% by 2001.

The same study showed that of those who did leave school 48% did no further study or became unemployed and only 23% of leavers attended TAFE or some other form of vocational training. Destinations of school leavers were: 29% became university students; 28% got a job but did no further study; 20% became unemployed; 15% became full-time students at TAFE or its equivalent; and 8% got a job and became part-time students at TAFE or its equivalent.

VET IN NSW SCHOOLS 1985-1999

In the mid 1980s the declining youth employment market and the subsequent increase in retention rates led school systems in NSW to review the curriculum available for senior secondary school students. The curriculum was primarily geared for students who would proceed to university.

In 1985 Joint Secondary Schools TAFE (JSSTAFE) courses were introduced. These courses, which still operated in 1999, are for students in Years 11 and 12 studying for the NSW Higher School Certificate. The courses are drawn from major award TAFE courses and are packaged to meet the requirements of the NSW Board of Studies so that students would gain credit towards their HSC. The courses are termed "dual accredited".

In 1990, four JSSTAFE courses were accepted for inclusion in the Tertiary Entrance Rank (now University Admission Index), a milestone in the recognition and acceptance of VET by universities. (One course, Small Business, was subsequently withdrawn because its content was not entirely appropriate to students still at school without experience in small business).

By 1992, demand for JSSTAFE courses had risen dramatically to 12,133 participating students. The courses were popular because they were seen as relevant and directly related to employment, were conducted in an adult learning environment and provided students with advanced standing in further TAFE study.

Funding was a major constraint, and school systems began to look towards school delivery of vocational courses to accommodate student demand and to embrace the directions set in the Finn and Carmichael reports.

In 1993 Industry Studies and the first of 7 vocational content endorsed courses were developed by the NSW Board of Studies for school delivery. These courses still operated in 1999.

The demand for school delivered courses was as dramatic as the demand for JSSTAFE courses. 21,890 students were participating in school delivered courses and 24,500 in TAFE delivered (JSSTAFE) courses in 1998.

In 1995 the NSW Government commissioned a review of the NSW Higher School Certificate, the first since its introduction in 1967. The White Paper, "Securing Their Future", recommended the strengthening of VET within the reformed HSC and promoted VET courses as an integral part of the curriculum for ALL students not just those who were not university bound. "The Government strongly supports high quality, industry recognised, vocational education and training in the Higher School Certificate". (Aquilina, 1997: 15)

The paper noted that existing VET programs needed to be reassessed to "assure their coherence and relevance, and extend recognition by employers, the vocational training sector, and universities." (ibid). Industry credibility, work placements and university acceptance were identified as critical areas to be addressed.

In December 1997, the administrative structures of NSW TAFE Commission and the Department of School Education were amalgamated to become the Department of Education and Training (DET).

The changes to VET provision as part of the reformed HSC, the constant changes to the VET agenda nationally and the amalgamation of the administrative structures of TAFE NSW and the Department of School Education provide many challenges and opportunities for schools and TAFE colleges as they move into the year 2000 and beyond. This research study was developed to assess the appropriateness of mentoring as a process for meeting the challenges and opportunities in the relationship between TAFE teachers and school teachers.

MENTORING

Mentoring is widely applauded as an appropriate way of facilitating learning, particularly in the context of adult learning. However, an examination of the literature provides a wide range of perceptions regarding just what is "mentoring". Long, for example, writing about mentoring in the context of the training of neophyte teachers claims that:

> [m]entoring ... is a two way process between the student teacher and the class teacher built on collaborative practices developed over a longer period of time. Mentoring is concerned with the building of mutual relationships where both the class teacher and student teacher are reciprocal learners, where each benefits personally and professionally from the practicum experience. This is achieved through a nurturing and caring paradigm in which reflective practices, centred in mutual problem solving are fostered, which enables the establishment of links between theory and teaching practice. Mentoring is therefore a shared experience between the mentor and student teacher which builds a relationship that empowers the participants towards perceptive and effective practice. (Long, 1995: 4).

The Department of School Education, on the other hand, provides the following fairly simple definitions: A mentor "is a person who is in a position to offer you support, advice, and time in a spirit of acknowledged mutual benefit." (NSW DSE, 1997: 1) Mentoring "is a process whereby someone with more experience or expertise provides support, counselling and advice to a less experienced or less expert colleague" (NSW DSE, 1994).

Carmin, by way of contrast, proposed the following relatively complex definition of mentoring.

> Mentoring is a complex, interactive process occurring between individuals of differing levels of experience and expertise which incorporates interpersonal or psychosocial development, career and/or educational development, and socialisation functions into the relationship. This one-to-one relationship is itself developmental and proceeds through a series of stages which help to determine both the conditions affecting and the outcomes of the process. To the extent that the parameters of ...[mutuality] and compatibility exist in the relationship, the potential outcomes of respect, professionalism, collegiality, and role fulfilment will result. Further, the mentoring process occurs in a dynamic relationship within a given milieu. (Carmin, 1988: 10).

Maclennan provides a similar detailed definition, but one which is more clearly structured. He claims that:

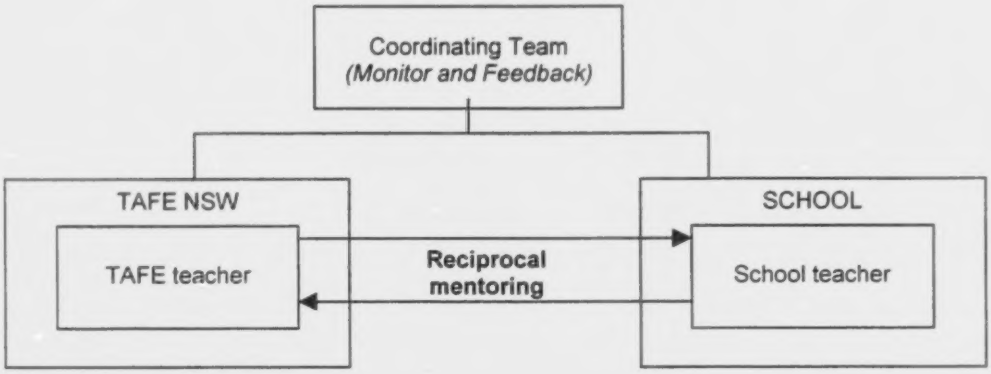
> mentoring is the process whereby one senior individual is available to a junior to: form a non-specified developmental relationship; seek information from; regard as a role model for the purposes of emulation; pick up what the organisation/department/company expects; show the performer through a phase of operational, professional or vocational qualification; guide the performer through a phase of operational, professional or vocational qualification; provide feedback and appraisal; and teach all the relevant facts that will enable the junior individual to perform effectively in an organisation. (1988: 6-7)

The Department of School Education suggests the following bases for mutually beneficial mentoring: there should be mutual choice; the relationship must be non threatening; the relationship satisfies a mutual need, (eg. for career development); there is friendship; there is trust; and there is a clear understanding of the purpose (DSE, 1997)

MODEL DEVELOPMENT

Given the unusual nature of the relationship between TAFE and schools where there is not a clear mentor and protégé division, none of these models seem appropriate for this particular research study. The nature of the mentoring relationship is one that most accurately would be designated as reciprocal mentoring. That is, the relationship is such that at one time on one set of issues the TAFE participant is the mentor and the schools participant the protégé, at another time on another set of issues, the schools participant is the mentor and the TAFE participant is the protégé.

Figure 1: Proposed model - Reciprocal Mentoring



The proposed model shows a considerable overlap between the TAFE NSW and School institutions with a coordinating team monitoring the situation and providing feedback. The coordinating team consists of members from both the TAFE NSW and school parties (as well as other interested parties).

The coordinating group provides three functions, it:

1. assigns the appropriate participants to the relationships.
2. monitors the relationships for any conflict.
3. acts as a counsellor for both parties. The coordinating group will serve to eliminate the difficult situations that may arise between inappropriate partnership selections and help to reassign both parties.

INTERVIEW PROCESS DEVELOPMENT

It was determined that there would be a pilot interview, to be followed by a review and then the interview program proper would be conducted. It was further decided that while the main focus of the interview program should be on school and TAFE NSW personnel, there would be also a small industry interview program to provide other examples of mentoring.

Following the completion of the literature review, a pilot interview form was designed and tested on a small sample of three interviews, selected for convenience. The outcomes of these three interviews were then reviewed by the Steering Committee. This review identified a number of difficulties with respect to the pilot interview format. These were that the context was not clearly identified in the responses and the relationship between the interview formats and the literature review was not clear.

These difficulties were addressed with a radical redesign of the interview format. This redesign incorporated a question on issues and challenges identified by the respondent; questions related to the nature of the relationship which could be compared with the mentoring model; questions related to the stage of development of the relationship (on the assumption that it was a mentoring type relationship); and a question asking the respondent to classify the relationship.

Because of the significant changes in the interview format between pilot and main survey, the pilot results were discarded.

SAMPLE SELECTION

The schools/TAFE NSW sample was intentionally biased towards respondents who were identified by colleagues and/or co-ordinators as engaged in successful working relationships between TAFE NSW and schools. For this reason, the results of the interviews are indicative only, and cannot be generalised to the population. Although the initial specification was also that it be a "mentoring-type" relationship, the sample obtained did not clearly reflect this characteristic.

This sample was also selected with the intention of obtaining a spread of results covering city and regional areas, schools and TAFE NSW, and different levels within both schools and TAFE NSW. The majority of the interviews were conducted face to face, with some telephone interviews being used to ensure some coverage of most parts of the state.

ANALYSIS

The NUD*IST computer software package was used to facilitate analysis of the results of the interviews. The results of the analysis follow.

Table 1: Sample characteristics

Division	No.
TAFE NSW	21.5*
Schools	16.5*
Location	
Sydney	17
Regional	21
Level	
Delivery (i.e. involved in delivery of courses only)	3
Delivery and co-ordination	6
Co-ordination (i.e. not directly involved in course delivery)	25
Management	4

* One respondent from a joint school/TAFE facility.

The schools/TAFE NSW sample contained 38 interviews. A breakdown of the locations and positions of respondents is shown in Table 1.

These results indicate the relative success of the sampling strategy, with a reasonable balance being obtained between TAFE NSW and schools, Sydney and regional areas and the various levels of interface between TAFE NSW and schools.

FOCUS GROUPS

The focus groups were convened in order that the perspective could be broadened; both partners of the relationship could be engaged in a common forum; different levels of the two partnership organisations could be engaged in a common forum; and other interested parties could be engaged in the same forum.

Four focus groups were convened, one at Bathurst, one at Dubbo, one at Werrington and one at Campbelltown. The number of participants present ranged from 12 to 18, and were drawn from a number of schools and TAFE levels and disciplines including Boards of Studies, ESDs, JSSTAFE co-ordination and delivery from government and non-government schools and TAFE, and other interested groups such as group apprenticeship representatives.

The Institute of Cultural Affairs (ICA) Technology of Participation (ToP) Workshop method was used to derive responses to the focus question:

> What are the critical success factors in a sustainable relationship between schools and TAFE which will facilitate the effective and efficient provision of VET programs for senior secondary school students?

WHAT ARE THE ISSUES AND CHALLENGES IN SUMMARY?

The primary challenge is that of merging two entrenched cultures and the consequent development of a new culture which has as a foundation parity of esteem. This will require getting rid of territories, not only between schools and TAFE NSW, but also within the school system and within the TAFE system. Until the importance of this particular challenge is acknowledged and addressed, successful VET programs for senior secondary school students will remain at the mercy of the goodwill of the participants. Fortunately there are many places where this goodwill is legendary. However goodwill can often deteriorate rapidly as pressure increases.

A second challenge is providing sustainable structures to support VET for senior secondary school students. These structures need to take into account not only the diversity of the student body, but also the scarcity and hence need for equitable distribution of resources.

When these two challenges have been addressed there remains that of working together (via reciprocal mentoring and/or shared staff development) to deal with a number of other issues.

These include coming to terms with the national agenda. The agenda is continually developing and therefore requires on going changes to courses/practices. However, both school and TAFE teachers need to be fully up to date.

They need to deal with the use of training packages. The use of training packages presents challenges to both school and TAFE teachers, though particularly school teachers as the emphasis is on assessment not curriculum. This makes VET courses different from other HSC courses.

They need to address the fact that usually only one teacher in a school is trained to deliver a vocational course. Therefore there is no immediate support structure within the school. There is a need to establish networks between schools and between schools and TAFE and a need to capitalise on the expertise and support structures in TAFE

They need to consider assessment in the workplace. Most training packages require that some assessment must occur in the workplace or at least in a simulated environment. Complexities of arranging this and the availability of qualified assessors make it a continual challenge.

They need to address joint delivery of a course. There is no such thing as a school delivered or TAFE delivered VET course as part of the new HSC. The most practical approach may be for TAFE to deliver some units of competence and the school to deliver the other units of competence to complete the course. This will require a much closer working together on assessment, provision of results to the Board of Studies, and maybe assessment in the workplace

They need to consider effective use of resources. Schools clustering with other schools to offer vocational education courses, schools accessing TAFE facilities (to meet industry requirements), TAFE teachers teaching in schools are all aspects of this challenge.

CONCLUSIONS

The combination of the data gathered from the interview programs and the focus groups allows the identification of some critical success factors for the relationship between schools and TAFE NSW in the context of VET programs for senior secondary school students. Note that the critical success factors referred to here are with respect to the relationship - not the provision of VET programs for senior secondary school students.

The NSW schools system and TAFE NSW each have a long history of doing what they do well. In the living out of that history each has developed its own unique and appropriate culture. The combination of the two systems under one DET director provides inherent challenges to both of those cultures. Neither can expect, nor is it desirable to maintain those disparate cultures. The challenge is for both to transcend their existing cultures to create the new DET culture. This is nowhere more apparent than in the context of providing VET programs for senior secondary school students. This where the realities of cultural (and technical) differences provide the abrasive or the lubricant for the process.

One of the themes which runs through all of the data collected in this project is the need for trust to be developed between the partners, if the relationship is to flourish. This trust needs to be based on a degree of mutual respect, which may not be present in a traditional mentor/protégé relationship in this context. The difficulty arises in identifying which is to be the mentor, which the protégé.

Against this background, it seems more appropriate to suggest that an effective relationship between schools and TAFE would be a reciprocal mentoring relationship. The two partners come together recognising that they are significantly different in terms of the culture of their organisations and the knowledge and skills that they possess. They commit to a reciprocal mentoring relationship, which allows them to benefit mutually, and hence deliver an enhanced product for the students in their care.

This in fact appears to be the type of relationship that has been developed in the places where the VET for senior secondary students programs are most effective. However, it has developed mostly on the basis of the goodwill of the participants rather than any properly planned and resourced process. As a result the development of highly successful programs is scattered, because the relationships have not been developed to this point in most cases.

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Work-related learning and changing the nature of work

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ABSTRACT

This paper argues that dominant constructions of vocational education and training are too narrow and derived from technicist notions of work. With respect to the employment contract associated with waged work such constructions are presented as being in the general interests of employers. For this reason, the concept of work-related learning is proposed. Within this broader framework the democratic right of working people to contribute to the organisation and structure of work is explored. Some vignettes of workplaces organised in different ways are presented. This is followed by further exploration of alternate forms of political economy.

INTRODUCTION

It is important to consider the assumptions which underpin vocational education and training (VET). Such a review can be organised around a number of questions. These include what is VET? How does it work? What distinguishes VET as a sector of education? Why is it important? What are its strengths? What are its weaknesses and limitations? The rationale is that these questions assist in arriving at an informed position from which to begin to explore alternatives. This paper introduces the field of work-related learning. This proposition is derived from the critique of VET.

The notion of work-related learning is used to think through aspects of work, in particular, Joe Kincheloe's idea of good and bad work. Vignettes are presented to illustrate these categories and for further exploration of the themes of democratising work and the development of economic justice.

SECTION 1: VET AS A DOUBLE EDGED SWORD

What is VET?

Leo Maglen defined VET as

> . . . taken to encompass all educational and instructional experiences - be they formal or informal, pre-employment or employment related, off-the-job or on-the-job - that are designed to directly enhance the skills, knowledge, competencies and capabilities of individuals, required in undertaking gainful employment.
>
> (Maglen in Blunden, 1997: ix)

Subsequently, a program is distinguished as a VET program when it is designed with the intention and purpose of being for gainful employment. Smith and Keating (1997: 3), describe VET as 'an international term that describes the development and improvement of skills and knowledge for the specific purpose of improvement in an individual's capacity in productive work'.

How does VET work?

John Stevenson (1990) has argued that course design in VET is based on three principles. These are relevance, responsiveness and uniqueness. Firstly, VET courses are relevant in the sense that they are based on the current requirements identified and agreed to by employers. Employers who are the buyers of labour in the exchange transaction that occurs in the labour market have become the major stakeholders in VET. VET courses set out with the primary aim of developing the skills, knowledge and attitudes that employers want. This links with the policy initiative of developing a training market and moving decisions about training to the demand side of that market. In this way

VET courses emphasise those skills, knowledge and attitudes that employers deem to have value on the labour market and which the employers are prepared to purchase and reward through the remuneration of wages. In this way, VET programs can be described as imparting market driven knowledge - 'valuable' knowledge.

In the same way, VET is said to be responsive. Responsive in the sense of addressing the skills and knowledge 'demands' of the market. The relevance and responsiveness of VET courses give them utility and usefulness. Stevenson's third principle of uniqueness has become more problematic and is less relevant to this analysis.

It is suggested then that one of the primary concerns of the VET field has become how to fit working people to the demands of employers. In recent times, VET research and practices have been focused upon attempts at improving the efficiency of these endeavours. In the main, the VET field, from practitioners through to researchers, find these activities to be unproblematic. In fact, it can be argued that access to power and inclusion within this field is awarded to those that not only belief in but can actively contribute towards improving the efficiency of the existing system.

Why is VET important?

Over the past decade, a great deal of emphasis has been placed on arguing for workplace reform justified by an argument for developing a future based on a highly skilled workforce. The major strategy within this approach was the development of skill based career paths, where wages were aligned to competency, and skill acquisition was rewarded with increased wage remuneration.

Such an approach makes VET important to working people (worker/learner/citizens) as it provides a pathway and a potential for increasing their power, through access to increased wages. Therefore, participation in VET programs provides learner/workers with access to skills and knowledges that have been deemed by employers, the purchasers of labour power, to have value on the labour market. The acquisition of skills and knowledge potentially improves workers bargaining power within the exchange relations of the workplace and labour market. In this way access to increased wages is presented as a significant form of empowerment. While this paper recognises this important role of VET programs it also argues that because workers remain fundamentally within the wage/labour relations of the workplace and labour market that any improved position with that relationship can only represent a limited form of empowerment. It also opens up discussion on whether this has to be so or instead might worker/learners/citizens develop a different type of education that is more appropriately aligned to a collective 'class' interest. Such an education might emphasis the human agency of working people and their role as citizens in a democratic society.

The critique of VET?

As with any field, expert opinion is often divided and contested. Joe Kincheloe (1999:112) explains that, 'in 1916 John Dewey clearly delineated the problems with mainstream vocational education: It perpetuates the weakest aspects of the industrialised economy, thus becoming an instrument in the construction of "the feudal dogma of social predestination". . . . .' Dewey felt that a democratic vocational education would realise and teach "the full intellectual and social meaning of a vocation.", (Kincheloe in Gabbard, 2000: 323 - 333; and in detail, Kincheloe 1999).

Democracy is a concept that is derived from the Greek words, demos - the people and kratein - to rule. Hence democracy is about 'the people rule'. Parker & Guelle (1998) argue 'all the procedures and protections that we usually associate with democracy - elections, rights to debate, a free press, for example - are simply a means to achieve 'the power of the people'. So while educators (and others) tell working people that we live in a democracy, we use course design procedures that fit working people to the demands of employers, simply because they have buying power. We attempt to do this by developing curriculum and pedagogical practices that will achieve this match up in the most efficient way possible. VET practitioners and researchers alike call this empowering our students as we justify it by providing course participants with skills, knowledge, attitudes and credentials that will improve their bargaining position in the labour market. In theory, this occurs by increasing the worker/learner's human capital. We ignore the fact that working people are not involved in the process. Meanwhile we use our position as educators to tell working people that these programs are in their best interests. Considering the amount of evidence that disputes the effectiveness of human capital, some might see this as undemocratic and hegemonic from the point of view of working people.

VET: some of the strengths and weaknesses

VET can in many ways be considered as a double-sided sword. The strengths of VET offer advantages to the participants in these courses. Yet in many cases these may be realised at some cost. The three principles cited above mean that the VET qualifications when completed would be matched to the specific and current requirements of the job. Participants in VET courses will develop abilities that employers want and are willing to pay. In this way, their abilities will have utility and value on the existing labour market. This places graduates of VET programs in good stead within the capitalist political economy.

For some this may also represent a major weakness. For in the same way, it may subordinate the worker/learners to the interests of capital. The determination of what constitutes 'useful' knowledge for working people is in the hands of employers. The knowledge of working people gets left to managerial prerogative and the market. Subsequently, it may be contrary to the interests of the learners.

In summary, on the one hand, VET can have strengths relating to currency and alignment with the requirements of the labour market. On the other hand a critique can be developed which argues that VET programs are often narrowly focused, instrumental, technicist, corporate, undemocratic and hegemonic to some of the broader class interests of the learners - a 'lackey' sector.

However if we accept the possibilities of such a critique, what can be done? Can this critique begin to identify and lay the foundations for more desirable approaches? Two possible approaches are outlined below. The first is very general and broad in its scope - this is the notion of work-related learning. The second is more specific and can be considered a subset of the first. This involves what has been called 'a critical postmodern pedagogy of work'.

SECTION 2: WORK-RELATED LEARNING

My own experience of work, and of workplaces, leads me to believe that there are indeed very many important aspects of work to be systematically considered and learnt - beyond productive skills. In its simplest form, work-related learning is for and about work and draws on multiple perspectives. It recognises that the activity of work can be contextualised in many different ways. It seems that part of active participation in a democracy would necessarily involve consideration of bigger picture aspects of how work fits within particular contexts. One line of analysis could locate work within a complex array of social, technical and economic relations.

A critical postmodern pedagogy of work

Joe Kincheloe (1999:181) suggests that there are five traditions in American VET programs. The first facilitates student decisions about careers. Second, VET helps students develop the skills needed to obtain and keep a job. Third, it provides students with an alternative educational environment that will benefit underachieving students and discipline problems. Four, VET teaches students technical work skills, and finally, it solves larger society's economic problems. Kincheloe acknowledges these roles but goes further to suggest a different approach which he calls 'a critical postmodern pedagogy of work'. Kincheloe's approach is derived from the application by McLaren, Giroux and others, of critical theory to schools and pedagogy, (hence, critical pedagogy) but he takes this even further and applies critical pedagogy to work and vocational education. Simon, Dippo and Schenke (1991) argue that work education and vocational education rarely question taken-for-granted dominant ways of seeing. Instead they suggest that a critical pedagogy of work should take as its purpose the challenging of comfortable assumptions about work and education. A critical pedagogy of work involves the problematising of work, and of the education that is associated with work.

Early in this century, John Dewey presented an analysis of work pointing out problems that existed. Unfortunately, his list is still relevant today and remains a good place to begin to explore issues around work and education. On this list are corporate power and its misuse, an inequitable distribution system, an irrational system of production, constricted information flow and an abundance of misinformation, technologies not attuned to human needs, class stratification, bureaucratisation of work and life, and the failure to democratise the scientific method, (Kincheloe 1995:56).

The most generic feature of a critical postmodern pedagogy of work is its recognition of the relationship between power, work and education. From there it teaches students how to evaluate work, and how to identify faults and contradictions in work situations. This approach acknowledges that the self-esteem of men and women and their standing in the community is often closely related to work. Such an approach also embraces a new economics that takes the cultivation of human potential vis-a-vis the ethics of difference and solidarity as its starting point. It begins to restore the knowledge of the work process and the overview of the relation of the job to the larger economic process back to everyday workers. Further it understands that work and work education are important sites of identity production.

Like other critical pedagogies, critical postmodern pedagogy of work, utilises and encourages, a language of critique and a language of possibilities. The next section of this paper explores these two ideas through the notion of 'bad work' and 'good work'.

Bad work

A critical postmodern pedagogy of work problematises work. Turning the language of critique to analysis of the workplace immediately identifies two of the major issues relating to work - these are exploitation and alienation. Marx argued that these were features of capitalist production. He believed that alienation was an objective state embedded in the capitalist labour process. Noon & Blyton (1997) explain,

> [Alienation] is an unavoidable objective state in which all workers find themselves. It manifests itself because in selling their labour power, employees are relinquishing the right to control their own labour, thus discretion over how and when work should be undertaken becomes the prerogative of employers. This subordination of employees to employers (or to managers as agents of capital) makes the activity of work a degrading and dehumanising activity.

Marx also foresaw an alternative construction of labour power under non-capitalist conditions. It is proposed here that such a pathway can be related to the notion of 'good work', while exploitation and alienation are aligned to 'bad work'.

Kincheloe (1999) has developed a list of eight features that he suggests characterise 'bad work'.

1. Social Darwinism: workers must operate under the law of the jungle. Those who succeed at work are the fittest.
2. Nature as enemy: one of the basic of human struggle involves man versus nature.
3. Science as fact provider: positivism covertly shapes the nature of the workplace.
4. Efficiency as maximum productivity: worshipping the bottom line
5. The supremacy of system efficiency and cost benefit analysis models, or the effectiveness of standardised inputs in the quest for agreed upon outputs
6. People proof jobs: designing work so that no matter how dumb a worker might be, the job can still be done.
7. Short term goals: the absence of ethical vision
8. The contingency of human happiness and human motivation as the acquisition of better consumer items. The first commandment of modernism is thou shall consume.

Good work

Good work is founded on an attempt to establish economic justice and workplace democracy. These call for alternative social, technical and economic relations of work. In keeping with the intentions of a critical pedagogy of work and following the idea of developing a language of possibilities, we next turn to Kincheloe's listing of ten principles for good work.

1. the principle of self direction, good work as a labor of risk
2. the principle of the job as a place of learning - work as a research laboratory
3. the principle of work variety - freedom from repetitive boredom
4. the principle of workmate cooperation - overcoming the fractured social relations of the workplace
5. the principle of individual work as a contribution to social welfare
6. the principle of work as an expression of self - workers are more than the sum of their behaviours

7. the principle of work as a democratic expression - freedom from the tyranny of authoritarian power
8. the principle of workers as participants in the operation of an enterprise - until workers are active participants talk of workplace cooperation rings hollow
9. The principle that play is a virtue and must be incorporated into work.
10. The principle of better pay for workers in relation to the growing disparity between managers and workers.

It is suggested that these principles are useful yet remain abstract and that it is in the exploration of actual workplaces, both, exemplars and ordinary where such features can become authentic. The next section presents four vignettes.

SECTION 3: 'ACTUALLY EXISTING WORKPLACES'

This section provides four vignettes of workplaces that are considered exemplars of some of the principles and features listed above. The first two are representative of workplaces during the 1970s and have an historical significance. The remaining two are representative of workplaces in particular regions. It is envisaged that the curriculum content for a critical postmodern pedagogy of work could contain many such vignettes. Again these are intended to contribute to the development of a language of critique and a language of possibilities.

Vignette #1: Chrysler Corporation - Detroit (1970)

Dan Georgakas and Marvin Surkin (1998: 9-11) recall the story of James Johnson in their book Detroit: I do mind dying. Johnson was a black autoworker at the Gear & Axle plant of the Chrysler Corporation in Detroit. The plant had been the site of a number of bitter wildcat strikes and in one two week period there had been two industrial deaths from on-the-job accidents. In 1970 car production reached 6.5 million while in the same year, the United Auto Workers (UAW) records show that their were 15,000 injuries in auto factories across the country. On July 15th 1970, James Johnson entered the plant where he worked with an M-1 carbine hidden in the trouser leg of his overalls. He took out the carbine and shot dead, a black foreman, a white foreman and a white job setter.

These actions were out of character for Johnson, who had no record of violence. He did not drink, he wasn't a ladies man, and in fact he was a bible reader. However on the morning of the shootings Johnson had received a suspension after he had refused to participate in a work speed up. After further review, it was found that Johnson had been treated unfairly in other incidents by the company where he had been docked pay and lost vacation time.

In his defence his attorney presented evidence to show that the Chrysler plant at Eldon was one of the most dangerous in the country. His lawyer took the jury to the scene of the shooting so that they could judge the harshness of the working conditions for themselves. The jury later acquitted James Johnson finding that he was not responsible for his actions. In a separate court action, in May 1973, Johnson was awarded compensation from Chrysler.

In 1970 productivity in the auto industry was at a high and further increases were being sought. As productivity rose, so did the number of serious accidents, and of the 4000 workers that worked at the plant at Eldon, some 70% were black. The company called its production methods automation, but the workers at the plant coined the term "niggermation" and the plant at Eldon was the most "niggermated factory in Detroit", (Georgakas & Surkin, 1998: 86 - 106).

Vignette #2 Lucas Aerospace (1974 - 75)

During the 1970s the British based Lucas Aerospace worked on and made equipment for Concorde. Some similar companies had experienced major rationalisations and restructures; GEC had recently sacked 60,000 workers with a wide range of skills. This sent shock waves through those working at Lucas and they subsequently formed a company wide union Combine committee. The Combine committee is quite unique in the British trade union movement. First, because such a committee crosses over a number of sites, thus stopping workers at one site being pitted against those at another. Second because the committee links together the representatives of technologists and engineers through to the semi-skilled workers on the shop floor.

As structural unemployment closed in on these workers they decided to resist. For the workers at Lucas it seemed absurd that they had all these skills, knowledge and facilities, while at the same time society urgently needed equipment and services which they could provide but which the market economy was incapable of linking.

Mike Cooley (1987), a key participant, suggested that four contradictions influenced what happened at Lucas Aerospace. First there was an appalling gap existing between what technology could provide for society and what it actually provides. Second, their seemed to be a tragic waste of our society's most precious asset, the skills, ingenuity, energy, creativity and enthusiasm of its ordinary people. Third, the myth that computerisation, automation and the use of robotic devices will automatically free human beings from soul destroying, backbreaking tasks and leave them free to engage in more creative work. Four, a growing hostility in society towards science and technology as presently practised.

The workers at Lucas prepared a letter which described in detail the nature of its workforce, it detailed their ages, skills, qualifications, the machine tools, equipment, and laboratory facilities. They put this information together with the scientific staff and the design capabilities and sent it in a letter to some 180 authorities, universities, trade unions and other organisations. The recipients were chosen on the grounds that they had been active in some substantial way in calling for the humanising of technology and the use of technology for socially responsible ways. In their letter they asked what could a workforce with these skills and facilities make that would be in the interests of the broader community. This telling exercise received only four individual responses.

Next, the Combine committee asked its members in a questionnaire what they thought they should be making and in a four-week period the committee received 150 different product ideas. In an effort to save their jobs the committee put together an alternate plan of what they could be doing at the plant which they intended to present to management for their consideration. Writing up of the plan started in January 1975 and was completed in January 1976, (Wainwright & Elliott, 1982; Cooley 1987).

The plan had four parts. The first part was documentation of the productive resources at Lucas Aerospace. The second part provided an analysis of the problems and needs facing these workers as a result of changes in the aerospace industry and the world economy. The third part was an assessment of the social needs, which the available resources could meet. The fourth section detailed proposals about products, the production processes, the employment development program, which could contribute, to the meeting of these different needs.

The product range was classified into six major areas:

1. Medical equipment which included kidney machines, artificial limb control, a hobcart which gave people with spina bifida mobility and a life support system for ambulances.
2. Alternative energy sources, this included heat pump units, solar cell technologies, windmills and fuel cell technologies.
3. Transport system, including a road/rail vehicle, airship, and a hybrid power pack for motor vehicles;
4. Braking systems;
5. Oceanics which included submersible vehicle;
6. Telechric devices, remote control equipment and 'hands at a distance' devices.

On the 9th January 1976, 37 shop stewards meet with 7 members of Lucas top management and in a two hour meeting the stewards presented the plan. The personnel manager accepted the plan but was non-committal. The managers agreed to bring a reply back to a second meeting. This meeting never took place and management did what it could to shelve the plan.

Bill Williams, a technical manager summed up what was really at stake "I'm quite sure personally that the issue was not the viability of the products from an engineering point of view: the real issue at stake was who manages Lucas". In May 1976, the company offered a written response, which they distributed throughout the Plant but never formally gave to the combine committee. In this they wrote, 'the company reminds the report's authors that it has a longstanding capability and reputation for producing a wide range of aerospace systems and components, and believes that the only way to secure jobs in the market economy is to manufacture the products which the Company is best at producing efficiently and profitably', (in Wainwright & Elliott 1982).

At issue was the question of 'who manages Lucas Aerospace, and to the senior managers this was a non-negotiable issue. At the heart of that issue was power, control and managerial prerogative.

Vignette #3 The Maquiladora

Karmel & Hoffman (1999) tell us that the maquiladoras - foreign owned assembly plants clustered along the Mexico - US border - are one manifestation of a worldwide trend in which industrial production is concentrated in areas with an abundant supply of low wage labor. Maquiladoras, also known as export- processing plants, first appeared in 1965 when the Mexican government initiated the Border Industrialisation Program as a means of attracting foreign investment. The BIP was aimed at lowering unemployment through the shifting of some US production to locations of low cost labor in Mexico. Though this didn't work out as planned, as the unemployed male workers were displaced as the industry showed a preference for women workers - who can be hired more cheaply and would presumably offer a more pliable and docile labor force (sic).

In 1998 there were over 3000 maquiladoras with over one million employees. 81% of these were production workers and 56% of these were women workers. 75% of the maquiladoras were located along the border and 79% of the employees lived in the border region. 832 of the maquiladoras were in garment assembly and textiles while 470 were involved in electrical and electronic accessories, 450 were manufacturing of other items and 340 were assembling furniture and related items.

Under NAFTA the tax breaks are not confined to the border region and so it was expected that this would relieve the strain of some of the border regions. The maquiladoras are exempt from paying local taxes and so left with no funds for infrastructure and services, living conditions become harsh.

The Maquiladora towns show a particularly lopsided form of urban development. Mostly industry operates in clean, modern industrial parks with state of the art facilities while thousands of workers live in cardboard shacks in shanty towns or colonias without plumbing, electricity, running water or garbage collection. Further, the lax enforcement of health and safety standards has attracted businesses that are looking to cut costs. This makes the workplaces and the nearby communities dangerous to work in, and to live. Inside the plants, worker safety is often overlooked in the interests of maximising profits. Meanwhile most maquila workers are earning the equivalent of $25 to $50 a week.

The Maquiladora industry operates as an export enclave. They operate in "free trade zones" which have little interrelationships with the host country's economy. Little of the raw materials or components are supplied from Mexican suppliers and there is little technological transfer. Profits from the industry are typically whisked off to the United States or South Korea where investors are based. Consequently, the maquiladoras do not promote true development of the Mexican economy. The industry offers a vivid example of the costs of economic policies that privilege corporate profits above all other considerations, rather than bringing them into balance with the needs of workers, communities and the environment.

Throughout Mexico and Latin America the term 'neoliberal' is in wide use referring to an overall framework for economic policy that emphasises privatisation, production for export, reduced public investment in health and education and social services, reduction or elimination of barriers to foreign investment, weakening of labor and environmental regulations, and fiscal and monetary policies that favour the needs of transnational capital. The maquiladoras have come to epitomise neoliberalism. Meanwhile regional agreements like NAFTA in the form of Asia Pacific Agreement on Economic Cooperation, the World Trade Organisation, and the currently postponed Multilateral Agreement on Investment look at continually expanding their realms of influence.

Vignette #4 Mondragon

The idea for the cooperatives of Mondragon located in the Basque region came from a priest, Don Jose Maria. The development of the Mondragon Cooperatives has fallen into two phases. The first phase began in 1956 while the second occurred with an overhaul of the complex in 1991. The Mondragon complex has over 30,000 workers and over six billion dollars in annual sales. This complex integrates businesses, a university, a research institute and a cooperative owned bank. The workers and their customers own the total complex. Named the Mondragon Corporacion Cooperativa (MCC) since 1986,

- MCC is a more important economic player in the Basque region than GM is in the USA;
- Ikerlan is the only Spanish research firm to meet the technical specifications for NASA;
- Caja Laboral Popular has been rated as among the 100 most efficient financial institutions in the world in terms of its profit/asset ratio;
- The Eskola Politecknika, enrols 2000 students, and is considered the best technical institute in Spain;
- MCC's distribution branch, Eroski, opened more "hyper-markets" than any other retailing group in the country;
- MCC's capital goods division is the market leader in metal cutting tools in Spain, as is its division that makes refrigerators, washing machines and dishwashers;
- MCC engineers have built turnkey factories in China, North Africa, the Middle East and Latin America.

Initially, Don Jose Maria set up a technical school and in 1956 five young recently graduated engineers set up a business to put into place some of the ideas they had picked up from their teacher, Don Jose Maria. The company called ULGOR derived from the first letter of each of their names initially produced oil stoves. With the assistance of their former teacher they borrowed money and went into production following principles of democratic decision making, profit sharing and community responsibility.

Mondragon has four enterprise groups, financial, industrial, distribution and corporate. The financial group has six enterprises, while the industrial has sixty-seven enterprises that produce a vast range of products from automotive parts, domestic appliances, bicycles and bus bodies. The distribution group has eight enterprises; Eroski, which has 264 stores, dominates the consumer sector. The corporate activities group consists of fifteen enterprises. These serve the total commercial complex as well as the community in general. The most important activities of this group are in the area of education and research. Within higher education is Alecoop, a student enterprise. This is a cooperative industry which originated as a spin off from the Polytechnical university. Interestingly, students work half the day in the factory and study in the university during the other half of the day.

Three economic aspects make the Mondragon Cooperatives unique. First is the wages, where most groups use a 4:1 ratio as a guide to the range of wage differentials with none above 6:1. Numerical values are allocated to each worker by the elected social council. Each worker is initially given a value of 1.0, so if a worker gains a technical diploma then this can be raised by 0.1. If however the worker is responsible for a team then 0.3 may be added to their value. Similarly, points are added for years of experience. The main factors in this equation are education, seniority, supervisory responsibility and performance evaluation.

The second economic aspect is the internal economics. A worker-member must make contributions. The worker's personal ability is tested during probationary period and an initial capital contribution of one year's wages. The worker can borrow this from the bank or set up a pay deduction system.

The third aspect is profit sharing. Any profits which remain after salaries and other expenses are then divided up in a pre-determined fashion. A typical division would be 10% to the socio-cultural fund; 20% to the company reserve fund; 70% to the worker-members.

Ten principles underpin the Mondragon Cooperatives,

1. Open admission
2. Democratic organisation
3. Sovereignty of labour
4. Instrumental character of capital
5. Self management
6. Pay solidarity
7. Group cooperation
8. Social transformation
9. Universal nature, and
10. Education.

This model of cooperation stands in contrast to most other organisations of production and utilisation of capital. The major feature is the primacy of labour and community and the subordination of capital to the requirements of the community. It is hoped that the four vignettes provide a snapshot into the potential such case studies might hold in the opening up of learning as it relates to work, and work practices for further consideration.

CONCLUSION

An activists approach soon gives rise to dissatisfaction with the dominant discourses as they are used in relation to VET in Australia. On the one hand, vocational skills and knowledges are important to provide working people with 'valuable' knowledge. This skill acquisition stands to theoretically increase workers human capital and improve their bargaining power in the labour market. Yet for worker/learner/citizens this involves a limited form of empowerment for as important as means to increased wages is important, this remains within the capitalist relations of work.

What is proposed is that in conjunction to the development of 'valuable' knowledge worker/learners require space to be involved as active citizens in considerations of the nature of work, work practices and its nesting within broader political, social and economic contexts. To this end it can be argued that working people require 'a real education, not one that keeps them dumb'. This paper proposes that vignettes of work, hold potential as part of the curriculum content in such programs, but acknowledges that decisions on this need to be made by the participants in these programs, the learner/worker/citizens.

Finally, it is envisaged that such re-conceptualisations will challenge those involved in VET teacher education to consider their own political and ethical stance as they contemplate whether we/they want to be involved in the education of architects or bees. If it's the former then maybe we need to move to a broader field of work-related learning and of which VET occupies a smaller part.

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Improving the incentives for investment in learning by adults: financing lifelong learning

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INTRODUCTION

This paper is part of a larger study concerned with factors that affect the investment in lifelong learning for adults. That study considers the ways in which the perceived private costs can be made smaller and the benefits larger for individuals and firms thereby strengthening the incentives to invest in lifelong learning. It reviews the adequacy of financing mechanisms that influence the availability of funds for investment in lifelong learning. In this presentation the emphasis is on the financing mechanisms.

Access to lifelong learning for adults has become increasingly important for economic and social reasons:

- technological change, globalisation of production and new forms of work organisation are leading to rapid changes in the industrial and occupational structure and to changes in the nature of work;
- substantial numbers are underemployed or jobless for much of their adult life;
- there is an ageing population arising from a continuing increase in lifespan and a relatively low level of births.

Realistic assessment of policy and planning require understanding the resource and financing requirements of expanded provision of education and training.

Government intervention

'Other things equal', as economists say in an attempt to simplify their argument, those who benefit from education and training should pay. However, there are a range of reasons for some form of government intervention, which may include:

- government provision of infrastructure and advice;
- regulation;
- government finance; and
- actual provision of training.

Many individuals may lack knowledge of the costs and benefits of education and training, the investment in learning is risky and the benefits are often realised in the distant future. In such a situation those lacking the personal or family resources may be reluctant to borrow - and financial institutions even more reluctant to lend since human capital unlike physical capital is not separable from the individual undertaking the learning. These factors tend to reduce the likelihood of borrowing and lending for learning at interest rates at all comparable to investment in physical capital. For *equity and efficiency* reasons there is a case for some form government intervention.

In the case of employers there may be a lack of information on the benefits of training and of the available types of training and their costs. There may be economies of scale in seeking information about training or providing training, that are not available to small employers.

Providers of training may not necessarily produce the sorts of training desired by individuals and employers; and they might not produce it efficiently. Incentives to efficient production of quality training may not always be present, especially if the provider has a monopoly of the provision.

There will be a tendency for a firm or an individual to underinvest if the benefits are captured by others. In the case of an individual, where learning may yield substantial externalities in social and economic terms there will be a tendency to underinvest. The externalities could include greater social cohesion, effects on children's learning, effects on other workers' productivity, better health and less crime.

In the case of firms, a large part of the benefits may be captured

- by the employees being trained in the form of higher wages; or
- by other firms who may recruit the trained workers from the firm that undertook the training.

Thirty years ago the response to the likely underinvestment, inefficiency in provision, and inequity in access would have been public sector finance and provision. The widespread restriction in the size of the public sector is a major factor in the ways of considering the financing of lifelong learning. It has led to close attention to the factors affecting private expenditures and to the causes of underinvestment by individuals and firms. It gives added emphasis to the need to reduce failures in the market which are seen to cause underinvestment or inefficient provision. It also increased the attention to other policy instruments including regulation, leverage on private spending through particular forms of intervention and exhortation as well as through public finance and public provision.

This paper concentrates on financing mechanisms. However it first briefly elaborates on two major reasons for government intervention:

1. the inequality in access to education and training among adults; and
2. the recent evidence on investment by firms.

In passing it is important to note that the voluntary adult education sector and the extensive ways of informal learning are neglected in this discussion. There is a danger in concentrating on the measurable that the important avenues of learning are given too little attention.

INEQUALITIES AMONG ADULTS

If equity is a major concern then attention to lessening the inequalities found fairly consistently across countries needs to be addressed. If raising the productive levels of the whole labour force is important then the neglect of less educated and older persons must be remedied. The following list is a summary of the inequalities among adults in access to education and training based on a number of studies in Australia (especially those drawing on the ABS (1998a) survey of education and training eg Ball 1999) and overseas:

- training and further education tend to be provided disproportionately for those with more education;
- workers with higher levels of literacy obtain more training;
- participation rates rise quite strongly with the level of income, though those on low income who do receive training tend to receive more hours of training;
- men and women in employment participate at fairly equal rates though women may receive less employer support and less hours of training over a lifetime;
- training participation declines with age, but less so in the US and Nordic countries;
- part-time workers and casual worker participate less than full-time permanent workers;
- the amount of training is larger the bigger the firm;
- training is higher in unionised workplaces;
- workers in managerial, administrative, professional or semi-professional jobs have a higher than average intensity of training; operators or labourers have low levels of training ;
- self employed undertake less training than employees; and
- the unemployed and those not in the labour force receive less education and training than the employed.

FACTORS AFFECTING INCENTIVES TO FIRM-BASED TRAINING

Firms' incentives to invest in training will be greater:

- the greater the increases in productivity of the employees trained;
- the greater the period of work or the retention of workers while the training is still effective;
- the smaller the proportion of the benefits of the productivity that are paid to the workers in higher wages and salaries;
- the more cost-effective is the training; and
- the firm's awareness of its benefits.

There is international evidence reviewed by Long et al (2000) that the rewards to firm sponsored training are very high *but that not all of them are captured by the firm providing the training.*

The provision of training leads to wage increases on average of about 8 per cent - a large amount in response to training courses often as short as a week. It does appear, as expected, that general training (training of use to more than one employer) has larger wage effects than specific training and that longer courses produce larger wage effects. It is less clear that formal training has larger effects than informal training, that off-the-job training has larger effects than on-the-job training or that employer-supported training has a larger effect than non-employer supported training.

There are benefits to employers over and above the wage increases to their employees - or there would be no incentive to invest. A range of studies are summarised by the OECD (1998a, Table 4.2).

There are a number of reasons why firms reap a substantial proportion of the benefits of *general training* as well as of specific training. The reasons suggested include:

- that other firms may not recognise the usefulness of the skills of workers trained by a particular firm;
- that workers and firms face costs when changing jobs; and
- that wage compression caused by industrial arrangement may mean that wage increases are less than the increased productivity of the workers.

There are a number of aspects of the current global and technological change and workforce reorganisation that are increasing the incentive to invest:

- there is a continuing shift on balance to industries and occupations that appear to require an increased level of skills, at least on average;
- work reorganisation means that within many occupations there is a change in the skills required often to a higher level eg in the skilled trades from repair to diagnosis and preventive maintenance;
- increasing global competition means there is an increasing emphasis on the skills of workers to provide firms with a competitive edge - workers in 'high-tech countries' receive more training, though it is not clear that firms facing increased competition increase their levels of training;
- there is an increasing use of new technology which at least at the time of its introduction requires an increase in the level of training (ABS 1998b); and
- the rate of technological change means that knowledge and skills are becoming obsolete at a faster rate.

However, there are also some strong forces working to decrease the incentives to firm-based formal training:

- the growth in part-time and casual work means that an employer (or an individual) has less work or less certainty of employment from which to recoup the investment;
- the continuing relative growth in the private sector which does not provide as much training as the public sector;
- the decline in union membership, since unionised workplaces have been associated with greater levels of training;
- an increase in self employment which is associated with lower levels of training;
- a higher aggregate rate of unemployment, reducing the incentive that a tight market gives to retain workers and train them (Stern 1994); and
- job turnover of the less educated reducing the time to recoup the benefits of training.

It is hard to sum up the net effects of these changes. Thurow's view for the US is stark:

> Since the needed skills will depend on the new fast-moving technologies being deployed, many will have to be created in a joint on-the-job training effort between employees and employers. But individuals no longer have lifetime careers with one company; companies no longer have lifetime employees. The result has been the gradual destruction of existing on-the-job training systems (Thurow 1999, 132).

In Australia there is evidence of a decline in the quantity of firm based training in recent years (eg ABS 1997, 1998a).

Summing up, there is good evidence that the total returns are high but not all are captured by the firm doing the training. The balance of changes in the economy may be reducing the incentives to firms to invest. On top of this, there are the continuing problem of small firms who miss out on economies of scale in training, the lack of knowledge of the availability, costs and benefits of training; and questions concerning the efficiency of the provision of the types of education and training needed.

FINANCING MECHANISMS

In attempting to raise the levels of investment in lifelong learning it will be important to improve information to both individuals and firms on the costs and benefits of education and training. It will be important to encourage forms of management or competition that provide incentives to cost-effective provision of education and training including the use of new technologies. It is also important for firms or groups of firms, to find ways of retaining workers they have trained. These issues are considered in the larger study but are not discussed further in this paper.

Here attention is given to a range of methods of reducing the financial cost to individuals and firms of undertaking education and training. In some cases they imply considerable government outlay. In other cases they imply government leverage or partial support to private outlay.

The means for reducing the cost of capital to individuals/employers are varied including:

- direct governmental grants or subsidies to individuals/employers;
- government loans usually with subsidy;
- grants and subsidies to education and training institutions allowing low or zero tuition fees;
- interest rate subsidies that make it easier to finance training out of future benefits/earning;
- the reallocation of public spending across sectors of education and training and across different socio-economic and age groups;
- legislated training levies requiring a minimum expenditure by employers;
- changes in tax codes to permit individuals/employers to set aside pre-tax earnings to finance future training out of past earnings;
- changes in tax codes to improve tax deductions and/or tax credits for training expenses;
- improved disclosure in capital markets, that makes it easier to link to training benefits to value creation process with potential effects on share values.

The size of the problem and government spending

A major addition to educational expenditures would be required to lift the levels of participation or attainment for example of those adults who have eg less than IALS level 3 or who have not completed secondary education. Some estimates of this are provided in OECD (1999). Estimates are made for a range of countries of the numbers of adults who would need to participate to meet the median or best practice (Germany). In many countries the number of adults to be provided for exceeds the total current enrolments in the secondary school system. Another set of estimates shows the increase in the volume of education and training for adults if those with less than secondary education received the levels of those who completed secondary education. This is a less striking set of figures, averaging around 20 per cent increase in the volume of training but it assumes that the less advantaged need only the same as the more advantaged. They may need more and different training.

Several of the mechanisms listed above involve government spending. It is therefore appropriate to review briefly the overall levels of government spending and the prospects for increases in these areas.

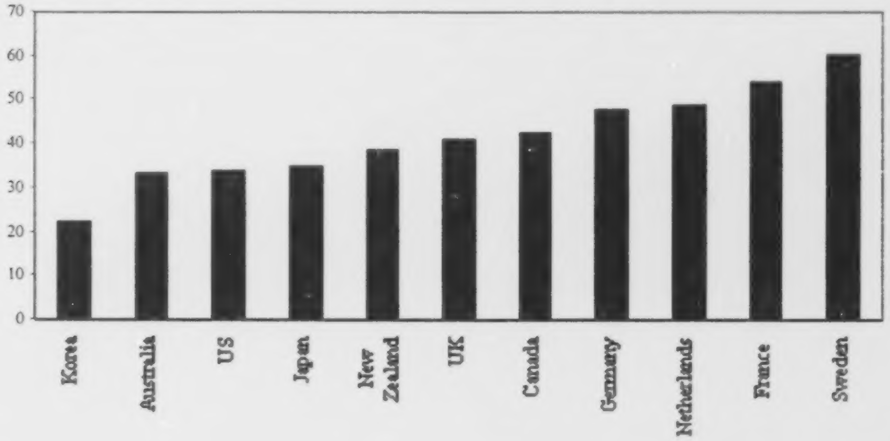
In the short term most OECD countries appear to be planning to reduce the share of the GDP taken up by total government outlays (OECD 1998b). Hence expenditures for education and training face strong competition with other priorities.

It is though, worth considering the variation in capacity and commitment to public and to educational spending. Figure 1 illustrates the range of general government outlays as a percentage of nominal GDP. Korea, with the lowest income per head of less than US$15,000 has the lowest levels of government outlay. All the other countries have per capita GDP in excess of US$20,000 per head yet have general government outlays ranging from less than 35 per cent to over 60 per cent of GDP. There does not appear to be an overall pattern in the 1990s in the changes in the general government share - several countries have experienced a growth and about as many a decline in the share. New Zealand is notable in the large decline in the size of its public outlays in recent years.

The variation in the government outlays specifically on education and training are smaller than that in total government outlays. Other activities of government such as social security expenditure vary more than education expenditure. And the countries with lower total government outlays tend to be those with higher private expenditures eg Korea, Japan, US and Australia. In some instances the higher levels of private expenditure can simply be attributed to the governments opting out or only partly funding particular sections of education. In other instances governments have, by mandate or incentives, helped to stimulate private expenditures.

It appears that there is no economically determined level of public expenditures that can be tapped for the finance of lifelong learning. It is a matter of the political circumstances of each country. It is possible that the hold of 'economic rationalist' arguments in favour of small government, privatisation and deregulation are not as globally entrenched as earlier in the 1990s. There appear to be more countries increasing education outlays as a share of GDP in the 1990s than reducing it.

Figure 1. General Government outlays, % of GDP, 1997



Grants and subsidies to firms

Some forms of training in firms are subsidised by governments in several countries. The total expenditure on labour market programs averaged about 1.0 per cent of the GDP across OECD countries for which data are available. The main element of these labour market programs in most countries is unemployment compensation which does not involve training. Programs directed to the training for adults averaged about 0.2 per cent of GDP. Denmark stands out in applying over one per cent of GDP to adult training. Much of this training expenditure is for the unemployed to assist them in entry to employment. Some of the funds for labour market programs are to subsidise employment, or for job creation schemes, which often have a training component to them.

Some innovative arrangements have been used to encourage small firms to increase their training. In Australia some training authorities are experimenting with vouchers given to small businesses for a specified number of hours of training to be provided by a recognised training organisation - either public or private. The success of this is not yet known.

Grants or loans to individuals

Support for living expenses or for tuition fees in the forms of grants or loans are available in a large number of countries. There is a tendency for these to be available for full-time students for higher education. Those who avail themselves of these are not the most disadvantaged.

In most countries education provided in the formal education system for the less advantaged is either provided with low or no tuition charges though there may be limits to the places available. Extending the available places is a matter for government budget and may be difficult to achieve without cost savings elsewhere in the budget.

These could come through innovative financing mechanisms such as the funding of an increased proportion of higher education via income contingent loans rather than by grants. Such a scheme as HECS in Australia reduces the proportion of the higher education budget carried by the government. Repayment by the student does not occur until earnings reach a level (now) about two thirds of average weekly earnings. Such a scheme, if not accompanied by an overall cut in government outlays, once in operation for a few years can provide funds for the expansion of adult education and training.

A number of schemes have been proposed for 'entitlements' to permit the less advantaged to have a proportionate or more than average share of government support for education and training. Levin (1998) reviews 'entitlements' in the light of more recent restrictions on government outlays. A case for a relative increase in the proportion of government support based on loans rather than grants may be seen to follow from this (OECD 1996,243). An alternative scheme is the *franchise* model whereby the government entitlement pays the full costs of lower levels of education but declining percentages at higher levels.

The UK has recently introduced Individual Learning Accounts. The government will pay £150 into the account after an adult pays in £25. They will be open to anyone in work but not in full-time education. The funds can be used for any course the adult wants (DFEE 1998). It is expected that many of the account holders will spend their funds at the newly founded University for Industry (Ufi) which will coordinate a network of learning centres in traditional education settings but also in some non-traditional centres like football clubs and churches (DFEE 1998).

Exhortation and compulsion: training levies and partnerships

Policies for increasing the investment of firms include attempts to exhort firms to provide more training eg in Australia the fostering of the notion of a training culture, in Germany the concept of the social partnership and the social obligations of employers. There is social pressure to invest irrespective of the costs and benefits.

In several countries a minimum level of training expenditure by employers has been mandated. These include the provision of paid leave as in Belgium and Denmark, Netherlands and France. With the exception of Denmark it is the more educated workers in full-time employment who benefit most.

France, Korea and Australia have had schemes requiring minimum levels of employer training expenditure as a percentage of wages or contributions for collectively funded training. Korea and Australia have abolished their schemes. The Australian scheme appeared to increase the level of expenditure of medium sized employers but not larger ones whose expenditure usually exceeded the required level prior to the introduction of the scheme. Very small employers were exempt. Arguments against the scheme were its unpopularity with employers and also that it took no account of the way in which the amount of training required could vary with the type of employment.

A social partnership model has been developed in some countries (eg. Austria, the Netherlands and Norway) though all recognise the need to do more in this area. These are schemes which do involve government funds but also elicit private funds. An example of a partnership is the work foundations in Austria, established to assist redundant workers. The initiative for these comes from employers or employees who seek collaboration with government bodies (OECD 1998c, 34).

A good example, from outside the OECD, is the skill development centres in Malaysia. These are non-profit private corporations established with funds from State government foundations and contributions from employers. They are governed by boards with a heavy representation of employers. They are usually sited close to industrial parks and support in-plant training in the first instance and training both on and off the job for qualifications where required. The most successful of these, in Penang, is regarded as a model for the efficient and responsive provision of training. They stand in contrast to the expensive and traditional, if good quality, training provided in government owned and operated technical institutions in Malaysia.

Taxation

Employers in Australia benefit from the current structure of taxation that treats expenditure on training in the same way as other costs of production. That is, unlike investment in plant and equipment, the full cost of training and grants to employees for training can be allowed against taxation in the year it occurs. This is the arrangement in all the OECD countries recently surveyed (Bruyneel 1999). The option to capitalise and depreciate these expenses is available for training expenses in most countries.

The immediate deduction of training expenses provides little incentive for the maintenance of records of the training or accumulated employee intellectual capital. The options to add a premium to the deduction would encourage greater investment (Wurzburg 1998). If the premium had to be treated like fixed capital and deducted over a number of years it would also promote greater knowledge of the extent of the firms investment in training.

Tax deductions are available for individuals payments of education expenses in about two thirds of European countries recently surveyed (Bruyneel 1999). However the more disadvantaged would not pay fees for education and training or have an income for which a tax deduction could be claimed.

On the other, hand value added taxes are levied on training expenditures in most countries. Australia in introducing a goods and services tax (GST) for 2000 has exempted education and training in accredited courses and programs that lead to accredited courses. However the GST may apply to non-accredited programs that provide a way into more formal education, programs taken by those reluctant to enter the formal system (ALA 1999).

CONCLUSION

Whatever the costs and benefits, the capacity of individuals or firms to undertake education and training will be limited if they do not have access to funds. The government remains crucial in providing funds, by ensuring access to capital, by developing a tax system supportive of education and training, by mandating training expenditures by firms and by its development of social or moral pressure for firms to provide training.

Though the financial stringency of governments is well known, the capacity for increasing the level of spending on education and training should not be ignored. Governments vary enormously in the total level of their outlays, and it is not clear that the most economically successful are the lowest spenders. Many governments have increased their level of education spending in the 1990s.

There is a strong case for increased spending for economic and social reasons on less advantaged adults. These include spending on formal training courses and subsidies to on-the-job-training. These could be funded from increased overall government outlays or from cuts elsewhere in education funding.

The tax system can be reformed to provide increased support for the financing of education and training. The methods of company reporting can be used to draw attention to training and its advantages, to promote the planning of training and possibly to enhance the public value of the corporation.

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The seductive hope of education work

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ABSTRACT

When educators talk about the changing nature of work, it is common for them to think about these changes as happening to other industries, and to other people. However, the changing nature of work has important consequences for educational workers, and has serious implications for VET policy and practices. In this paper, I draw on insights developed during a four year research project with adult educators living and working in the Greater Western Suburbs (Sydney), during which I developed knowledge and understanding of the phenomenon of educational work in the 1990s. I critically examine the contradictions that exist for these workers, and consider the implications of these tensions for those 'at the top' of the educational continuum.

INTRODUCTION

Adult educational workers know very little about each other's pay and working conditions. When they come together, as we have done at this AVETRA Conference, they talk about all sorts of interesting things — but they almost never talk about the kind of sick leave entitlements they have, or the hourly rate they are paid. They might, over morning tea, compare notes about this year's restructuring experience, poke fun at the latest manager, and generally share outrage about the direction of public education. But for various reasons, talk of 'teaching' and 'learning' is judiciously compartmentalised from talk of 'conditions', almost as if they are two disconnected arterial roads, maybe not even heading in the same direction. In this discussion, I want to bring these two roads together, to argue that they are inextricably connected, and to look at the bumps.

POLARISATION IS PERSONAL

It's become quite common for papers about education reform to begin by talking about globalisation. This talk often refers to changes such as the rise of neo-liberal ideologies and marketisation (Marginson 1993) through mechanisms such as competition policy (Anderson 1997). It also includes discussions about structural change, the polarisation of wealth and advantage, and labour market reforms such as work intensification and rising casualisation (Jackson 1996). Whilst I do intend to restate the basic tenets of this argument, for the purposes of this paper I want to focus briefly on polarisation, and then to consider some of the consequences of labour market reform for adult education workers.

What is meant by polarisation? Polarisation is the redistribution of wealth upwards, and the emergence of what has come to be called 'the working poor'. Put simply, rich people have become richer, and poor people have become poorer, and this has occurred as a national as well as an international phenomenon (Brecher & Costello 1994). This shift of wealth is not just about money. It's also about living conditions, working conditions, access to decision-making, resources and processes of determination. Specifically, in relation to the issues I want to discuss in this paper, the shift is away from secure permanent and stable (male) working cultures to something else. I say 'something else' for the same reason that Tickell & Peck (1995) talk about 'after fordism' rather than post-fordism — we are too much in the midst of change to be sure at this point about where we are going. However, enough is known about the direction of change to be able to state that increasingly casualised work and a regendered labour force (Jackson 1996) have replaced secure male employment.

When these claims are made in the media, it's been easy to imagine that the polarisation of wealth is something that has taken place somewhere else, and to someone else. In everyday reality, it probably has happened to us. It's become personal. By doing nothing much at all except begin a career pathway twenty years ago as a teacher in a public school, I am now 'permanently' employed in a job where I now earn a salary in the top 10% of the Australian labour market. I say 'permanently' in inverted commas because, as a result of the research I've done during the past five years, and as changes to public institutions catch up to me, I now feel insecure. I'm not absolutely certain, as I was five years ago, that my job really is safe, and I say this as a tenured lecturer. Such a statement was once unthinkable.

It has also become personal for other education workers. As competition policy reshapes the face of the education industry, as the boundaries between institutions are weakened, and as the distinctions between public and private are eroded, education workers increasingly compete within the same industry 'space' for employment. This leads to a continuum of employment experiences and different levels of advantage and disadvantage for those employed in the industry.

VOICES 'FROM THE BOTTOM'

Polarisation implies a 'top' and a 'bottom'. If I am amongst the top 10% of income earners then below me lies 90% of other people. When I first began to do research about the adult education worker phenomenon, I did not expect to be talking to participants at AVETRA about their wages and conditions. I expected to be talking about my recommendations for making sure that educators remain critical and experimental. During 1994-1998, as I researched educational work with over 80 participants living and working in western Sydney, I came to see that it is not only unrealistic, but also negligent, to talk about 'teaching practice without at the same time talking about teaching conditions. Through a series of four qualitative studies that drew on the approaches developed by researchers such as Haug (1987) and Lather (1992), I created a space in which the voices of those working at the sharp edge of systemic reforms in western Sydney provided insights and understanding about educational work.

During the research, I asked participants about their experiences of work as educators during the 1990s. Although their answers were diverse, the following was suggested. At the sharp edge of educational work, it was increasingly difficult to gain access to full-time secure employment. The word 'permanent' was unlikely to be in their lexicon. Many worked under contract, and it was likely that the contract was for less than a year, and was be routinely extended or ended. Contracts were unpredictable, and tenuous. Others worked as casuals, and although such work was a core wage activity, the 'just a casual' syndrome was alive and well.

A continuum of employment experiences existed, and these are shown in Figure 1, below.

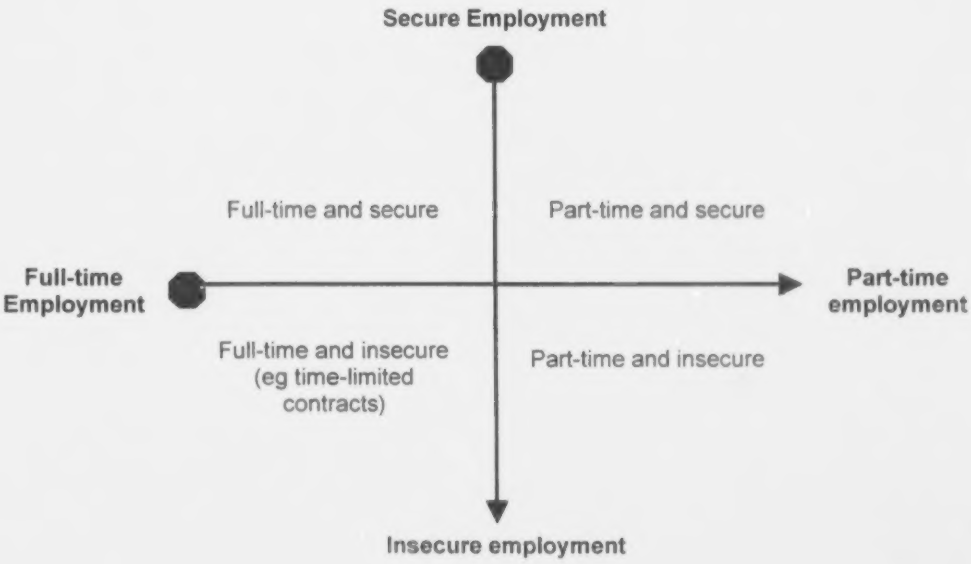

Figure 1: Continuum of employment experiences.

The direction of the continuum was towards insecure and part-time employment. Yet the desire of participants was towards secure employment, whether full-time or part-time. Many were employed full-time, in work that was based in the lower right and lower left quadrants. That is, they were employment full-time in part-time casual positions or full-time contract positions. Multi-income streaming was common. The hope of full-time work in TAFE had died, and during the past two years, participants became increasingly adept at chameleon behaviour: today a builder, tomorrow a literacy teacher, the next day an employment consultant.

In my research, the average income for education workers was $37,000. Beneath this average however, lay a polarised spread between $70,000 (for a handful of corporate trainer/managers) and a much larger number of workers who typically earned between $13 — $35 per hour, although the latter sum was only earned by part-time TAFE teachers. As adult educational work is so diverse and notoriously difficult to define, no national benchmark or standard wage exists for this type of labour. Educational workers were paid under such mechanisms as a trade award (for example, if they were tradespeople who moved 'up' into training roles), a state award, a national award, a TAFE award, or if they were self-employed, the sum allocated in a contract.

With the exception of managers, and those workers with a 'traditional' full-time and permanent profile, research participants often had quite limited access to decision-making and control. They did not see themselves as regular members of teams, had poor access to planned on-the-job training, were poorly resourced, and were generally (and increasingly) expected to contribute unpaid labour to their workplaces. Unpaid labour included attending meetings, unpaid preparation time and writing tender documents in the hope that it would secure future employment. For some, periods of unemployment juxtaposed periods of intensive over-work and hyper-activity, especially associated with periods when funding was received, or new government policies demanded rapid change. Their desire, however, was to have greater access to decision-making, teams and other forms of workplace participation.

THE SEDUCTIVE HOPE OF EDUCATION WORK

The research suggested that the creation of the Open Training Market gave rise to the seductive hope that education work provided a new source of rewarding white-collar employment. Participants in the research had become educators for many reasons, but their decision to remain as educators was underpinned by a hope that the intrinsic and extrinsic rewards could be great, and that they would be involved in meaningful work that 'made a difference'. Six key contradictions characterised the seductive hope of education work, and I discuss these below.

Contradiction one: enablement and constraint

It was common for participants to express two competing views of their experiences as education workers and reflected a tension between enablement and constraint. For example, the following hopes and experiences coexisted:

- I hope for greater financial reward AND I have limited or no access to promotion, a stable career, or a minimum educational wage.
- Qualifications will improve my chances of survival in the organisation ('one organisation' employees) or the labour market (contingency workers). AND My experiences show that qualifications do not protect people from the impersonal and haphazard effects of downsizing.
- Teams are empowering. AND I have no access to teams.

A strong belief in the personal and transformative potential of the educator (enablement statements) was juxtaposed against a lived reality that was regulated, insecure and at times uncaring, indifferent and/or rigid (constraint statements) for some workers, or rewarding, exciting and fulfilling for others (enablement statements).

Contradiction two: flexibility and insecurity

The second contradiction was expressed as a tension between an ongoing belief in the story of 'flexibility' as an ideal, and the lived experience of 'flexibility'. The ideal of 'flexibility' was associated with two aspects of education work — working hours and teaching methodology. In relation to working hours, 'flexibility' was often translated into:

- insecure work
- hours worked in an unpaid capacity where the educator was flexible in determining the boundaries around 'paid' and 'unpaid' labour
- deregulated hours
- role flexibility and skills diversification
- rapid and flexible responses to changing funding agendas and ideology
- gaining credentials to meet the changing requirements of curriculum accreditation

The degree of contradiction was often experienced in relationship to the quality of the employment environment. Some were rigid or impersonal; some conveyed a sense of powerlessness in the face of pressure from 'the government'. Only a small number were clearly committed to reciprocal flexibility — that is, the employer who was willing to provide flexibility in return for flexibility. Despite this, throughout the research it was rare for participants to 'pin-point' the employer as the determining body for working conditions. The employer was effectively protected from taking responsibility for employment policies. Such an analysis was deflected to 'the government'. An alternative view was never suggested. For example, it was never suggested that an employer could choose:

- to pay above award rates
- pay for overtime
- choose higher award rates (there are many for education workers)
- pay for training in kind or cash, or
- provide career pathways for contingency workers.

Thus, many education workers talked about 'flexibility' simultaneously in multiple terms that were contradictory.

1. 'flexible learning' as:
    - inflexible pre-packaged curricula, rules and regulations
    - responsive to local student needs
    - exciting and demanding
    - frustrating and stultifying
2. 'flexible employment' as:
    - work intensification or work insecurity
    - working time that suited family commitments
    - exciting and demanding
3. 'flexibility' as:
    - a complex spiral between self-exploitation and professional achievement
    - a balance between coercion and pleasure.

Contradiction three: team belonging and longing

Three experiences of belonging characterised the third contradiction. These were: the ideal of 'belonging', longing to belong ,'belonging'.

Most participants who were employed as contingency workers would have preferred to work in one, secure position at a time, even if it did not mean a full-time job. A desire for continuity formed part of these participant's aspirations. At the beginning of the research in 1994, this aspiration was tied largely to a desire to work for TAFE NSW. By the end of 1998, the desire was for stable work, even if it had to be found across a number of employers.

For some participants, the desire to belong was a driving force behind completing the degree. Belonging was not just to an employer, but to a professional identity and to an ethos of white-collar work and 'a lifestyle oriented career'. The desire for belonging, combined with loyalty to students and the aims of education and training, enticed some participants to make voluntary contributions to the employer organisation. For example by developing resources to be shared with other staff, by establishing web pages during unpaid time, by up-skilling in areas useful to the organisation, and by providing professional services such as training and development for staff, without recompense. At the same time, those participants who did 'belong' to one organisation, expressed a range of positions about their attitude to employment. Others 'belonged' after a restructure where former work-mates were made redundant. For some reason — and it was interesting to note that it was not clear to them why — they had survived a restructure. Others did not 'belong' in that they had witnessed restructuring, were suspicious of their employer, and to varying degrees had suspended expressions of loyalty and commitment to the employer.

Those who had chosen contingency work as a strategy for achieving flexibility (males as well as females), were:

- more likely to have less access to flexible teaching environments
- less able to take risks, or determine educational ideals
- less free to make decisions, simply because of the pragmatic result of lack of continuity and time one workplace, therefore
- less able to contribute outside the constraints of regulation.

Participants in this position experienced a paradox — the more willing they were to be flexible (work patterns) the less able they were to be flexible (work practices).

Contradiction four: doors and walls

Unresolved, simultaneous and contradictory myths about the organisation characterised the fourth set of tensions, and I have called these the 'Brick Wall' view and the 'Open Door' view. The 'Open Door' was the ideal workplace that participants had read about and heard about. This was a workplace where workers had access to decision-making and control and to rich intrinsic and extrinsic rewards. The 'Brick Wall' view was the lived experience of the organisation. The logic of the 'working out' of this contradiction can be summarised by the following statements:

- enterprise was rarely rewarded extrinsically — but I live in hope
- access to decision-making (beyond the immediate boundaries of the classroom) was often limited to full-time 'one organisation' employees — but it might be extended if I come up with really good ideas
- the development of new skills was rarely fostered on-the-job by employers — but they might reward new skills I develop elsewhere
- the breaking down of boundaries rarely occurred — but my creativity often compensates for rigidity
- reward was intrinsic rather than in the form of above award wages, career pathways, security, or professional development — but 'the government' created this climate, and my employer has no choice.

Contradiction five: loyalty and fear

The fifth set of contradictory tensions was expressed between three types of loyalty — loyalty to a career, an employer, an ideal, and between loyalty and the various everyday experiences of work. Loyalty to 'the government' and to 'educational ideals' was often based on a job-satisfaction-commitment model and the workplace authority model (Adler & Adler 1998). That is, loyalty was based on both the intrinsic reward of education work as well as a belief 'in the legitimacy of the employer's exercise of authority' (p.31).

Stories were told, however, of the tension between loyalty and fear. On one level, only one participant indicated that her employer expressed loyalty to her. Loyalty was then, a one-way phenomenon. Other participants were afraid that they would loose their employment, and this constructed loyalty in important ways. Morag, for example, had a great deal of loyalty to the ideals of the training reform agenda, and therefore to her clients and employers, but at the same time was fearful of unemployment. Morag believed in the power of education and training and career flexibility, and was highly motivated to promote it to her clients. 'I never want to go back to when I was so low, I had no choices' was one aspect of her story, and another was that 'the realisation of my potential is demonstrated by my transition from traditional employment (as a nurse) to a lifestyle oriented career'.

The loyalty/fear contradiction:

- constrained rule-breaking and risk-taking
- silenced the recognition of exploitative employment practices
- lead some education workers to exit education work, or leave particular employers

- entrenched self-exploitation
- constrained the discovery of alternative action-scenarios
- led to high levels of motivation and engagement, even for contingency workers with low hours per week
- stimulated creativity.

Contradiction six: opportunism and exploitation

The final contradiction was expressed as a tension between opportunism and exploitation. In this research, 'opportunism' took two forms. Firstly, it was expressed as a practise of adapting actions to circumstances (Macquarie Dictionary, ibid, p.1216) where the source of resources changed. For example, participants did this by:

- learning computer skills
- gaining multiple credentials on order to teach an increasing number of accredited programs
- being available at odd times, and for short or long periods of employment

Secondly, it was also the practice of entrepreneurship. Participants 'pursued opportunities' (Ropo & Hunt 1995, 9) by:

- establishing a small business for teaching the use of computers to people in their homes
- developing credentials and expertise for potential, rather than actual employment
- identifying a problem in an organisation and developing solutions to solve it, without resources, and not necessarily in response to a specific request by the employer/manager
- entering a tender process as an unpaid employee, sole trader or owner manager
- developing skills and networks for employment in fashionable educational trends
- role diversification.

Both types of opportunism were common, however the popular notion of the entrepreneur (someone who is dynamic, takes risks, develops high-profit products) was not a feature of participants' enterprising behaviours. In addition, participants did not have access to the 'high flying' work and financial rewards often associated with entrepreneurship.

Balanced against opportunism, was the experience of exploitation (Sargent & Matthews 1999, 213). Participants told stories that indicated their willingness to self-exploit. They were prepared to engage in work intensification, unpaid work, and poorly paid and insecure work for many different reasons. Participants did not talk about 'employer exploitation', but nevertheless such exploitation occurred. For example:

- unpaid work hours to write tender documents for the organisation
- unpaid preparation hours (contingency workers)
- minimal allowance for preparation hours (full-time one organisation employees)
- asking workers to share expertise without recompense
- work intensification without a clear indication that such work would protect the educator from future job loss
- annually requiring contract employees to re-apply for their jobs
- adhering to the lowest minimum award wage
- relying on the resources provided by the educator
- relying on, and benefiting from, self-motivated skills development without providing training or a training budget
- claiming the intellectual property of contingency workers
- lack of transparency in employment practices, including the way in which part-time contingency workers were allocated a share of casual hours.

Exploitation was not limited to contingency workers. Kell, Balatti, Hill and Muspratt (1997) have argued that, in the case of full-time TAFE teachers in Queensland, the pressure towards change has resulted in a 'willingness to self exploit' (p.19), chronic overload and stress, lack of direction, and a survival mode (p.20).

CONFRONTING HOPE

There has always been a pool of casuals working at the margins of adult education work. The movement of insecure work from the margin to the centre of employment practices in the Open Training Market in western Sydney represents a point of continuity with previous practices. This shift has implications for the capacity of the industry to construct a hopeful future for all those involved.

From our positions 'at the top', educational researchers often develop research and recommendations that we truly expect will be implemented by those 'at the bottom', but without much understanding about what that actually means. Many education workers in this research had poor access to decision-making and control, inadequate rewards, and often endured unimaginative management practices and endless systemic reforms with considerable energy and hope. Their capacity to be critical, creative and enthusiastic exceeded to capacity of the education industry to utilise such a potential resource. The 'just a casual' syndrome was alive and well, and had occupied a permanent place at the heart of employment practices. Such a situation can be seen as counter-productive and as a threat to the development of professional capabilities, risk-taking and experimentation in this industry.

Such a view provides a starting point for a quest for better stories, such as a focus by researchers on enlightened employment and management practices, rather than solely on better teaching technologies. The self-motivated hope of exploited education workers is a sad and inadequate cornerstone of future education work.

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Managing a case study approach in VET research to address the funding agency's criteria

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ABSTRACT

A case study approach has great potential where qualitative data can inform the fabric of linkages between various factors underpinning a research topic. This is particularly important where other forms of data are limited or relatively discrete. Case studies require the interpretation of results in the context of the data collected. Therefore, the findings have limitations in terms of generalisability and replicability. In the VET sector, the selection of case study sites often depends on the willingness of participants to permit the researchers to enter the site, to observe and document key interactions and to analyse policies and practices.

Sometimes the selection of case studies is constrained by external funding agency requirements. This paper discusses issues for a case study methodology in VET research that arose from specifications set by NREC that influenced the selection of sites for in-depth study. An analysis of how some of these issues were addressed during a recent project on the place of staff development in the VET sector follows. The authors propose some guidelines for the selection of case study sites.

Research in the Australian vocational education and training (VET) sector gained significance only recently when the need to form theory about vocational education and training was recognised as key to the development of VET. The rationale behind such evolution was a move towards globalisation and internationalisation of training following serious comparisons with the VET systems in Germany, Britain, the United states, the Scandinavian countries, Japan and the OECD countries (Funnell, 1996). The focus of much research about vocational education and training is on the problems and issues confronting those who work or have an interest in this field. The VET sector, hence its research projects, are largely driven by political agendas and economical factors, and shaped by policy and funding initiatives (Funnell, 1996). As the field of VET research gradually grows to develop theories and address issues of major concern to the skilling of the workforce, it is increasingly becoming important to pay attention to more rigorous methodologies that enhance the reliability and validity of such studies. While both qualitative and quantitative approaches, in combination, are much preferred, researchers should use stringent procedures to guard against flaws in their designs.

The National Centre for Vocational Education and Research (NCVER) and its subsidiary bodies (eg. National Research and Evaluation Committee, NREC) under the direction of the Australian National Training Authority (ANTA), is the major organisation that sets research priorities in VET that are of national significance. They also manage the commissioning of government funds for such purposes. A tender process is used to allocate funds to bidders. While NREC does not determine the specific research method to be used for their projects, in offering the tenders it specifies a set of conditions or grid that constrains the choice of theoretical frameworks and thus approaches to collecting data that may also influence generalisability and replicability. Such grids often contain a set of predetermined representation criteria. A case study approach is one instance where such criteria challenge the corresponding theories for practice. Part of being a public funded agency means that NCVER's practices must be inclusive. However, setting pre-determined criteria that drive or influence the methods to be used could place in question the validity and reliability of the data and thus the generalisability and replicability of the findings.

The experience of a team of researchers investigating the current provisions of staff development in the VET sector, with a view to developing models for practice is described in this paper. The authors relate how certain constraints arising from NCVER's requirements were addressed and a set of guidelines for future case studies is proposed.

THE PROJECT — THE QUALITY OF VET PROVISION: THE ROLE OF STAFF DEVELOPMENT IN VET PROVIDERS

This project involved a study of staff development requirements, both initial and continuing, of teachers and trainers in the public and private sectors of VET responsible for the delivery of education and training. The need for such a study was driven by pressure from a industry-led VET sector to meet the needs of industry, enterprises and individual students. Demands for training were expected in flexible and co-operative ways within the context identified by a growing competitive training market, a new National Training Framework and a model of training based on training packages. Furthermore, apparent changes in recruitment policies within Registered Training Organisations (RTOs) resulted in employment modes, mainly short-term contract and causal employment, with implications for the level of support towards initial training and on-going staff development. NREC's mandate for the project required the research team to examine, document information, and provide recommendations on a range of issues relating to the staff development needs of VET teachers and trainers in the new education and training environment. A key purpose was to develop a strategic response to staff development issues that would meet the needs of VET teachers and trainers to last beyond the current environment. The outcomes of the project are expected to augment ANTA's response and commitments to staff development in this new environment. The project addressed five issues identified by NREC:

1. Outline current employment modes of teachers and trainers in RTOs and the access to staff development of teachers and trainers in the various modes;

2. Identify the demographic profile of the teachers and trainers employed in the various modes in a nationally representative sample of RTOs;

3. Identify current arrangements and evaluate the appropriateness of initial teacher training and 'train-the-trainer' programs;

4. Identify the current skill strengths and weaknesses of VET teachers and trainers and in particular their current capacity to meet the challenges posed by the new National Training Framework and the introduction of Training Packages. This will require reporting on the skills required to meet the new challenges. (This process may build on work currently undertaken to develop teaching competency standards);

5. Outline best practice models of staff development for VET teachers and trainers and identify any barriers to developing best practice models of development for VET teachers and trainers.

The outcome of the project was expected to ensure that quality provision of education and training was delivered by teachers and trainers who could enhance their own knowledge and skills through access to best practice examples of initial teacher training, 'train-the-trainer' programs and on-going staff development.

METHODOLOGY

The issues to be researched were investigated using both qualitative and quantitative approaches. A combination of both approaches resulted in clear and robust interpretation as they evolved from and complemented each other. The research design consisted of six interrelated stages: establishment of the project; selection of a nationally representative sample of public and private RTOs (in collaboration with the NCVER and the Reference Group); development of an ethics protocol; general data collection on staff development; Delphi survey; questionnaire survey; 15 case studies ; and reporting and dissemination of findings.

A reference group comprising State/Territory included representatives from the Government Department responsible for staff development for VET, union representatives and was formed as an advisory group for the project. The project began with a search of the literature on staff development in the VET sector and a survey of current staff development provisions for VET staff. A series of delphi surveys involving senior management and officers with responsibility for staff development at the State/Territory level was conducted to gather information about current and future challenges facing VET teachers and trainers and the state of preparedness to meet them. Data from these three sources were analysed to develop a survey instrument for VET staff involved in the delivery of courses and Human Resource Development personnel within each VET provider. The survey instrument was piloted before they were sent out to a sample of VET providers.

On request each State/Territory staff development officer provided a list of providers considered to implement best practice examples which could be candidates for in-depth case studies. They also nominated exemplary staff development programs which were available at a state or national level. Among this list were providers who had recently won State/Territory or National awards The 10 case study sites were spread over the ACT (1), New South Wales (3), Queensland (2), Tasmania (1), Western Australia (1), Northern Territory (1) and Victoria (1).

The five state /national staff development programs formed a set of case studies of a different nature. They were either selected on the basis of information available on ANTA's homepage or were nominated by several of the same people who were involved in the making nominations for the site-based case studies. The programs chosen for study were Framing the Future, Learnscope, VITAL, Teaching and Learning and Charles Sturt VET course.

NREC'S GRID

The final contractual agreement for the project contained a 'grid' placed by NREC that presented challenges to the researchers. Constraining factors included the need to ensure sites that are representative of providers from the private/public sectors, urban and rural/regional locations, small/large sized institutions, and the inclusion of courses/programs that cover a range of industry types. The grid placed constraints such as staffing, time, access and sensitivities for staff and providers that were not realised until the project was well underway. These are discussed in more detail later. However, at this stage it should be noted that using the NREC grid with its multiple categories invariably leads to what would be referred to in quantitative research as a 'confounding of variables'.

CASE STUDY METHOD

The application of a case study method to research enables the discovery of complex interactions between some phenomenon and its temporal context in ways that may otherwise be limited. The inclusion of the context provides richness that surpasses data collected using quantitative methods such as surveys. The context of a site is best studied using a case study approach. The data collected using this method can inform the fabric of linkages between various factors underpinning a research topic. This is particularly important where other forms of data are limited or relatively discrete. Case studies involve the use of multiple sources of evidence with no particular form of data _ quantitative or qualitative (Yin, 1993). The interpretation of results is in the context of the data collected. Therefore, the findings have limitations in terms of generalisability and replicability. However, Yin (1993) advocates that multiple case studies (the inclusion of more than one case or site) should adhere to a replication rather than a sampling logic for more robust findings. A replication logic guided by criteria relating to some exemplary attributes allows researchers to cover distribution of conditions significant to the study and helps screen all possible sites or cases. On the other hand a sampling logic pre-identifies representative criteria that can distort the benefits of using a case study method. The rationale for case study findings is to generalise to some theory rather than a population (Yin, 1993). However, in recent years there have been attempts to combine qualitative and quantitative approaches. For example, once factors, issues or concerns have been identified, as a result of analysing (representative?) qualitative data, it is possible to complete an effects matrix to assist with generalisation. Such a matrix would identify the extent to which these factors, issues or concerns were important (eg low, medium or high) in each of the case studies. These ratings are made by the researcher responsible for the particular case study after an agreed basis for such rating has been established. Once the effects matrix has been completed it is possible to quantify the results and obtain descriptive statistics and to use some statistical tests. Such approaches seem to be attempts to appease funding bodies which value studies from which they can safely generalise.

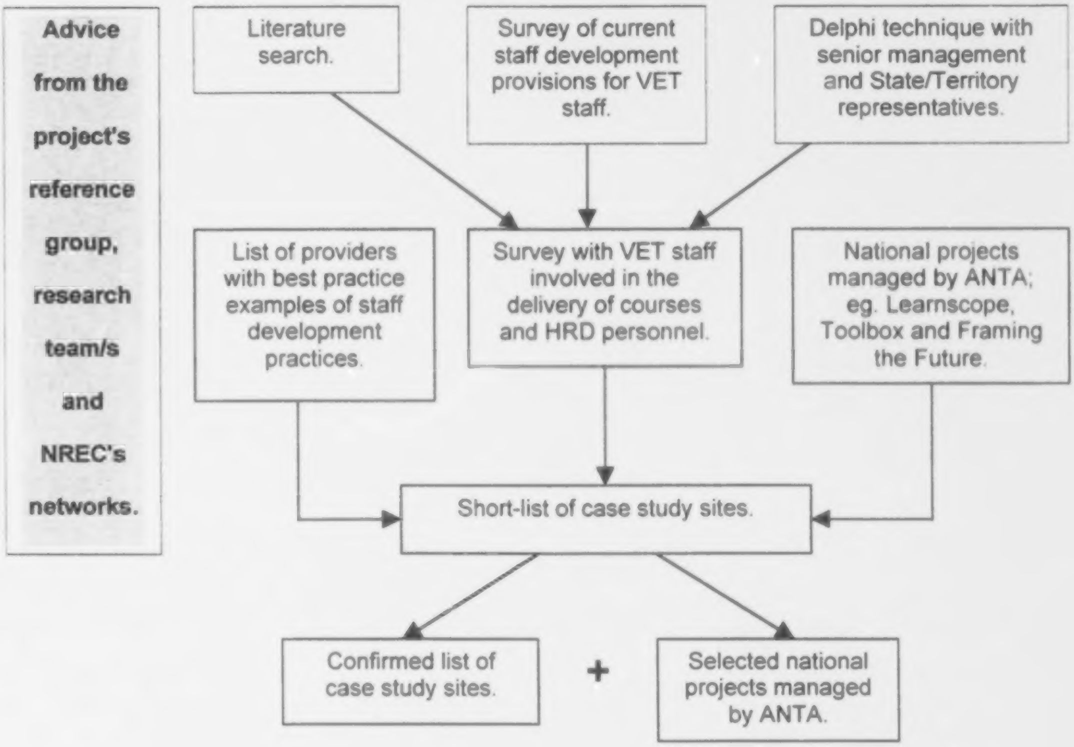
Regardless of the purpose of the research using a case study approach, there is an explicit role for theory in designing and guiding the analysis of empirical evidence. The use of critical theory is integral to designing sound research procedures based on literature and policy issues. While its use delimits enquiry to a most effective design, considerations of access, convenience, logistics and non-substantive issues are not covered by theory and are largely managed through the experiences of the researchers.

One of the most difficult steps in case study research is the selection of cases or sites. There are no precise guides for the sampling process. One approach is to establish the unit of analysis to guide the operational definition of key characteristics of cases and determine the qualifying criteria for each. In setting the boundary limits the units of analysis also dominates the design as well as the potential theoretical significance of the case study approach. Case study researchers are often faced with the problem of using a representative sampling scheme when only few sites can be included for extensive collection of data within a set time frame. The selection of case study sites through a listing, classifying and screening process may consume a significant proportion of the overall resources, a point often not appreciated by the funding agencies.

CASE STUDY DESIGN FOR THE PROJECT

The case study design for this project was informed by data gathered from a number of sources. Figure 1 places these sources of data into perspective to illustrate the process of selecting case study sites for this project.

Figure 1. The process of selecting case study sites for this project


Advice from the project's reference group, research team/s and NREC's networks.
Literature search.
Survey of current staff development provisions for VET staff.
Delphi technique with senior management and State/Territory representatives.
List of providers with best practice examples of staff development practices.
Survey with VET staff involved in the delivery of courses and HRD personnel.
National projects managed by ANTA; eg. Learnscope, Toolbox and Framing the Future.
Short-list of case study sites.
Confirmed list of case study sites.
+
Selected national projects managed by ANTA.

The survey data informed the screening of providers for short-listing. Although the aim of the case studies was of topical relevance feasibility and access factors were of primary concern in short-listing. National action learning projects (eg. Framing the Future, LearnScope and Toolbox) that were managed by ANTA were also considered for short-listing. Each provider in the short-list was approached for approval and negotiations to confirm them as a case study site. Arrangements were then made for the researchers to visit the site for data collection.

Preliminary analysis of data gathered from the various sources was used to construct the case study protocols, interview questions and guidelines for the analysis of case study data. The use of formal case study protocols and the development of a case study database resulting from the

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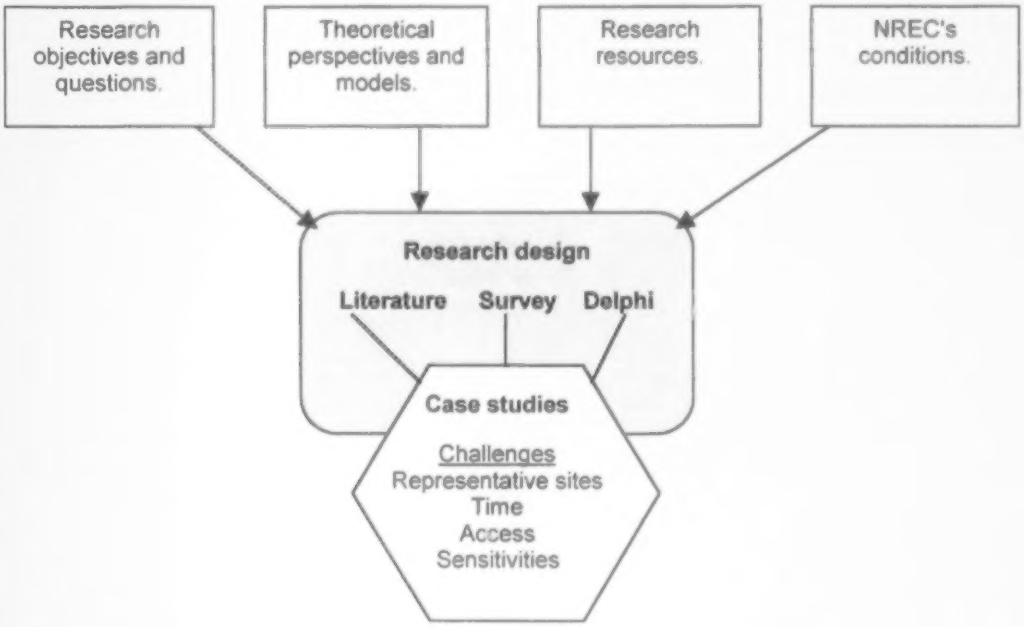
analytical guideline differentiating the evidence from the transcriptions helped achieve reliability of data.

Data for the case studies were gathered through interviews (one-to-one and group), and the analysis of policy and practice documents relating to staff development at each site. The use of multiple methods for data collection for this project enabled a richness that might otherwise have been somewhat limited. Hence the overall findings gave a comprehensive overview of staff development practices in the VET sector. These were subsequently used to develop models for quality provisions of staff development in VET providers.

CHALLENGES AND RESOLUTIONS

The contractual agreement between the research team and NREC, the funding agent stipulated several procedural and product/outcome related propositions. These propositions downplayed practicalities relating to access, convenience, logistics and non-substantive issues that were not fully appreciated until the project was well underway. Time, representative sites (as proposed by NREC), access and for participants were the key factors that presented emerging challenges to the researchers. Such difficulties arose despite the agreement and approval from senior management in each State and Territory for participation and support towards this project. Moreover, NREC's conditions contested the theoretical basis for the case study design. Figure 2 illustrates the key elements that determined the design for this project and challenges encountered by the research team in the conduct of case studies.

Figure 2. Key elements that determined the study design and challenges encountered in the conduct of case studies



Representative sites

The funds allocated for research projects by NREC originate from the public purse. In justifying equitable spending it requires all possible sub-sectors of VET to be represented in the study. The research team was requested to ensure that the case study sites included private and public funded providers; providers located in urban, rural and regional areas; large and small providers as determined by student numbers; and a range of courses/programs that had broad industry coverage. Theory about multiple case studies advises against a sampling logic that tends to distort the benefits of using a case study method (Yin, 1993). A sampling logic is best suited for survey and experimental methods.

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Most of NREC's requirements for a representative sample of the types of providers were met during the survey and Delphi technique. The selection of case study sites followed more rigorous procedures largely governed by the findings of the questionnaire and Delphi surveys. This approach supported the theoretical foundations of the case study method and also screened the prospective sites that were later short-listed once approval was obtained from the directors of the providers (sites). The advice of the reference group in this matter was valuable. However, the final distribution of case sites meant that some of the case studies had to be completed by other researchers The final confirmation of sites depended on issues of accessibility and convenience to suit the research team's plans and time lines set for the completion of all case studies for the project.

Time

The project began in mid 1998) was estimated to take about 12 months for completion by August 1999. Although the overall time frame for the project was estimated as sufficient, in practice each stage of the project had to be extended beyond the due dates. Personnel from the VET providers agreed to participate, but were constrained by their local semester and course timetables. Access to participants was limited at the beginning of each semester, during assessment/examination periods and the end of semesters. Furthermore, semester breaks, public/regional holidays and major institutional activities (eg. open days) were factors that significantly influenced times of staff availability, but were overlooked when setting timelines for various stages of the project. Full participation from VET staff was convenient only over a few weeks each semester.

Even during times said to be most convenient for participants, written, telephone and email responses from them were not always sent by due dates largely because the request for information pertaining to this project was not considered a priority by everyone. VET practitioners operate in a highly commercial environment and are mindful of their time commitments for activities that do not have a commercially profitable return. NREC appreciated these constraints and approved an extension to the due date for the final report to the end of March, 2000.

To accommodate the timetable of prospective case study participants, the research team allowed some flexibility. However, the theoretical challenge to the case study design was to complete data collection within a short time frame to overcome the effect of 'time' as a variable. After prolonged negotiations case studies in all States were completed between November 1999 and February 2000.

Access

The problems associated with access were namely those concerning approval by key senior management; extent of networks; willingness of staff to participate and support the project; right of review; limits of openness; payoff/remuneration for participation; convenience in terms of time; convenience of physical accessibility (geographical in nature); and convenience of resources - mainly finances. All managers from the short-listed sites for case studies approved and supported the research team's wish to collect data at their institutions. They each appointed a local staff to liaise with members of the research team. Their association with the research team and its networks expedited the process. Universal approval from all managers is not always accomplished and is often influenced by their local contexts and constraints. Besides, approval by managers does not ensure optimum outcomes at the site for the researchers. The success of the case study depends largely on the willingness of staff to participate and/or support the aims of the project. Their willingness also effects the right of review and limits of openness. Of course the rights of review and limits of openness may also be influenced by their institutional policies and practices. Policies surrounding the 'commercial-in-confidence' imperatives for example are sensitive issues for all VET practitioners. The researcher's skills in conducting case studies become critical in such instances in collecting as much data as possible without any disrespect for sensitivities at the site. In the case of this study, the liaison officers at each site arranged the interviews and review of documents for the purposes of the project. The basis for selection of those to be interviewed is a key issue. The process is open to manipulation.

Whether the participants or their institution receive any remuneration could also influence the level of participation and depth of information they provide. In this project no inducements other than receiving feedback about the case study in which they participated were given. Some participants were pleased with this feedback and subsequently forwarded constructive comments. It appears that such feedback has not always been forthcoming.

Participant accessibility at times convenient to them plays a part in the degree and scope of interactions that are possible during the case studies. All interviews were conducted at times most convenient to the participants. Another important factor of physical accessibility relates to the geographical location of the sites. Ideally, diverse geographical sites would ensure that urban and rural providers are represented. However, the focus of the researchers for this project was to investigate staff development practices and models that were established, innovative and had successful outcomes. There was no point in driving to a remote location with a handful of staff experiencing staff development programs similar to one in the urban or suburban location. The final breakdown of sites was listed earlier. The distribution of sites was such that all states and territories were represented with the exception of South Australia. Half the sites were regional and one of these was a enterprise provider. One metropolitan private provider was included. The urban case study in Victoria was specifically chosen because it had a staff development program for part-time staff.

Finally, case studies had to be completed within the budget allocations therefore the expansion of funds for distant travels was limited which placed restrictions on the number and location of distant sites that could be included in the study unless one of the research team resided in that area. Where it was not possible for the research team to travel, the services of local researchers were sought. These substitute researchers were thoroughly briefed about the project and its aims and given specific instructions on the conduct of case studies. Nevertheless, there were significant differences in the style in which researchers reported their case studies which made the process of analysis more difficult.

Sensitivities

Throughout the planning and conduct of case studies, the research team encountered a number of concerns that were of a sensitive nature. Some of these were discussed under the challenges of time and access. Other sensitivities included: negotiation of access; confidentiality; commercial-in-confidence; limits of openness; use of pseudonyms; right of review; interpretation of data; extent and nature of publications; purposes of data collection (motives other than stated by the researchers or proponents of the project); and

implications of the project's final outcomes to the individual participants and their institutions. Considering that all VET providers were operating in a highly commercial environment, the negotiation of access required clarity, respect and courtesy. Confidentiality of participant details and information that were commercial-in-confidence marked the trust between researchers and subjects of the case studies.

Researchers were responsive to any protocols that formed part of the cultural practices. at that site. Where needed, they reported to a senior management personnel before speaking to other staff. Additionally, approval from the respective unions was sought for access to their members. Respect for right of review and limits of openness remained throughout the project without any pressures for information beyond what the participants were prepared to volunteer. For purposes of confidentiality, pseudonyms were used to label each case study site. Concerns of how the data would be interpreted were addressed by allowing participants the option of examining the units of analysis and reacting to the evidence extracted from their transcriptions. Unfortunately it was not possible to do this at all sites. Such concerns were more common among staff from public funded VET providers who were wary of constant changes and implications of research outcomes for their positions and professions. Questions about the motives of the researchers, NREC, extent of publications, and overall implications of the project outcomes were not surprising.

The experiences of the researchers for this project are certainly not unique to them or this project. Unexpected problems with logistic and non-substantive issues often emerge during the course of a project which is when the limitations in well meaning 'grids' placed by funding agencies is realised.. While funding agencies such as NREC have their own set of mandates from the government, researchers have an obligation to make them aware of challenges in fieldwork for VET research and to offer advice which may assist those involved in future projects.

MATRIX FOR CASE STUDY RESEARCH IN VET

The experience of conducting case studies for this project raised concerns about factors that researchers need to consider in relation to site selection for case studies. These are summarised in the matrix below.

	Challenges			
	Site selection	**Timing**	**Access**	**Sensitivities**
Considerations	Theoretical: • type of case study — exploratory, descriptive or explanatory • single or multiple cases • replication or sampling logic • variables of significance to the research objectives	• project management timelines • establishments' timetables • individual participants' timetables • times most convenient to participants	• key senior management's approval • extent of networks • right of review • timing • limits of openness • convenience of physical accessibility (geographical in nature) • convenience of resources - mainly finances • remuneration for participation	• negotiation of access • confidentiality • commercial in confidence • limits of openness • use of pseudonyms • right of review • interpretation of data • extent and nature of publications • purposes of data collection (motives other than stated by the researchers or proponents of the project) • implications of the final outcomes of the project
	Non-theoretical: • willingness to participate in or support the project • accessibility • convenience • limits of openness • right of review • pre-identified representative criteria set by the proponents			

PROPOSED GUIDELINES FOR CASE STUDIES IN VET RESEARCH

The above matrix is a valuable guide to those wishing to conduct any type of case study. It was developed from our experience in this project and others and the literature which has influenced our thinking.

During the project some informal guidelines seem to emerge in conversations about the selection of sites and programs. Initially all case studies were to have involved site visits. However, it became apparent that studies of staff development programs which extended across sites were important as they were highlighted in the Delphi surveys and conversations with human resource managers. There are few formal guidelines for such studies and the project team debated the selection of programs until some consensus was reached.

In general the team believed that the NREC grid and the set of project objectives required a set of case studies of good practice in staff development from which it was possible to achieve outcomes which would inform future practice. With this in mind, the following informal guidelines for selecting case studies were applied.

1. The case studies should be selected in a way which reflects their purpose. In the case of the research project reported here the purposes were to assist in:
    a. delineating the nature and purpose of staff development currently available in a range of settings;
    b. identifying best practice models in staff development.

c. describing access to staff development by teachers and trainers in different employment modes;
d. examining the ways in which providers organise and manage staff development;
e. noting the kinds of staff development activities available;
f. ascertaining the barriers to participation in staff development programs; and
g. investigating ways in which staff development contributes to the quality of VET provision.

2. The case study sites or programs should have enough in common so that it is reasonable to expect that some general issues or concerns may exist. In the study here reported the following critical success factors relating to effective staff development emerged from a cross-case analysis of the case studies. It was found that good practice in staff development requires:

   a. appropriate positioning of staff development within the organisation
   b. partnership
   c. appropriate programming
   d. suitable delivery
   e. quality content
   f. appropriate support in the workplace
   g. overcoming barriers to participation.

3. Case study sites or programs should be selected in a way in which contrasting approaches to the same issue or situation are represented. For example, in this study it was important to include at least one site which had a staff development program which targeted the needs of part-time employees a group which has been neglected according to the literature.

4. Potential case study sites or programs should be nominated by those in a position to make informed judgments. In this study case sites or programs were considered if they received several nominations.

5. Potential case study sites or programs should be reviewed in terms of what is already known. In the case of the programs selected for this project evaluations were useful in narrowing the field. In the selection of case study sites the features of organisations which have reputable staff development programs were used in the process. These included:

   - a clearly articulated policy framework for training and development
   - a strong staff training and development team
   - a well developed set of procedures which guide staff development
   - a commitment to systematic evaluation of staff development

6. There should be sufficient diversity at the case sites or in the case study programs to enable appropriate comparisons and contrasts to be made and thus identify what seems to be critical. In the present study the analysis of the data led to the development of a good practice model. Such a model is one in which:

   a. key stakeholders (eg teachers, trainers, staff developers and managers) have input into the process of analysing and defining staff development needs;
   b. the responsibility for meeting those needs is seen as a joint responsibility of the organisation and its staff;
   c. the organisation and its staff negotiate the ways in which the staff development program can best meet the agreed needs within the constraints of staff time and budget, not just for permanent staff, but also contract and sessional;
   d. there are diverse ways of addressing and supporting individual staff development needs;
   e. staff development activities are monitored for quality of material, relevance, delivery and support;
   f. program outcomes are evaluated beyond the level of participant satisfaction; and
   g. procedures are put in place to maintain and enhance the outcomes of staff development programs so that they do not disappear over time.

The above six guidelines reflect the professional judgment of the researchers involved at that time and should be the subject of critical analysis. They reflect the messy nature of aspects of research in the VET field and situations in which it is not always possible to predetermine what will be selected for study. There need to be more accounts of the journey of researchers as they progress through a project. Such accounts can be of value to other researchers, especially those starting out in a new field.

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Constructing work: the hidden impact of generic competencies in the Australian construction industry

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ABSTRACT

The Australian construction industry has been undergoing significant workplace reform for the past decade. In NSW, workplace reform has included an emphasis on cooperative workplace relations and new approaches to training including generic competencies.

This paper is a brief summary of the current Strategic Partnership with Industry Research and Training (SPIRT) research project we are conducting in partnership with the NSW Department of Public Works and Services. The research has primarily focussed on the role and effects of the generic competencies within a workplace reform context. In this context, the transferability of generic competencies has been identified by key industry stakeholders as a continuing concern.

The project was designed in three phases with the third phase now forming. Phase one examined ways in which generic competencies tend to cluster, by highlighting the roles of collecting & analysing of information, teamwork, communication and planning & organising activities in construction work of all kinds. Phase Two identified the growth in influence of the workplace reforms that surround 'occupational health & safety' and 'environmental' practices —, as this is terrain in which transferability of generic competencies could be more extensively examined.

Our findings to date tend to confirm that the development of the generic competencies is relevant to continued industry improvement. However the industry has yet to develop systems and mechanisms for facilitating the optimum transferability and recognition of such skills. Experience and/or expertise in workplace reform do not necessarily transfer easily from job to job, and it is the aim of Phase Three is to explore why this may be so.

INTRODUCTION

The construction industry

Nationally the industry annual output 'is expected to exceed $45 billion through to the year 2005.' (DPWS, 1998, p. 17). In New South Wales government ongoing capital investment expenditure is around $5-6 billion each year (DPWS, 1998, p. 10). While government is a significant client and regulator of the industry, the actual work in the state is dominated by private enterprise.

It is a large and complex industry comprising of about 25,000 enterprises in New South Wales alone. Sixty-five per cent of these businesses fit the Australian Bureau of Statistics (ABS, 1998) classification of "small businesses". Only 1.3 percent of construction industry enterprises have a turnover of $20 million a year or more (DPWS, 1998). The industry-wide influence of these major companies is very significant.

The industry is also made up of a complex set of relations. Large enterprises take on the role of project managers, subcontracting to specialised and usually smaller enterprises for particular parts of the job. In addition the work site itself is constantly changing. This changing workplace means that new configurations of problems arise with each location. Overarching all of this is the vulnerability of the industry to a boom/bust cycle. One year there is more work than can be comfortably undertaken; the next year there is none. These conditions provide the environment in which industry reform has to occur. The peculiarities of the industry develop a very particular character or culture. As with human 'character' some people within the industry see it as something you are born with that is unchangeable, while others argue the character has to adapt to a changing environment, including a nation currently experiencing enormous economic, technological and societal change.

The industry is presently affected by competing elements evoked by the tendering process, an increase in project-management approaches that rely on specialist subcontracting and out-sourcing, the independence of subcontractors, the pressure of completion dates, financial constraints and a culture that emphasises material outcomes.

Industry stakeholders have worked together to develop a more consensual approach (Gyles, 1992) and government is encouraging change and regulation, through the development of policy, industry agreements and legislation. The work being done in policy regarding occupational health and safety and environmental practices, is significant, although there are indications in this research that the gap between policy and practice is also significant. For instance a source of tension in the implementation of current changes relates to how to include subcontractors and 'out-sourced' labour in learning and training reforms.

The recognition and development of the generic competencies in the construction industry is acknowledged (Hayton et al, 1993a, 1993b) as fundamental by many in the industry to the industry's own development, while our research data suggests that transferability of the generic competencies is a not so straightforward issue.

TERMINOLOGY

Workplace reform

Workplace reform as initiated in the building and construction industry during the late 1980s by the then Federal Labor government had its philosophical roots in a vision of cooperative workplace relations. Initially the project sought interpretations of workplace reform from the interviewees. As the project has developed aspects of workplace reform has been selected that clearly example the generic competencies. Workplace reform was understood most frequently to relate to industrial relations and included multi-skilling and training as well as a move away from conflict and toward cooperation. For the final stage of the project we identified two sites of workplace reform for study — occupational health and safety and environmental practices because they are influential in the developing aspects of the industry and raise significant issues for workplace learning.

Generic competencies

In this project we take an integrated approach to competence (Hager et al, 1994). This means competence is thought of in terms of knowledge, abilities, skills and attitudes displayed in the context of a carefully chosen set of realistic occupational tasks that are of an appropriate level of generality. This contrasts with the narrow task-based approach now generally discredited. We draw on the generic competencies set out in the reports by the Finn, (1991) and Mayer (1992) (with the Minister for Education and Training (1993) amendment) as follows:

- Collecting, analysing and organising information (KC 1)
- Communicating ideas and information (KC 2)
- Planning and organising activities (KC 3)
- Working with others and in teams (KC 4)
- Using mathematical ideas and techniques (KC 5)
- Solving problems (KC 6)
- Using technology (KC 7)
- Using cultural understandings (KC 8)

Transferability

Transferability of the generic competencies and skills is about the capacity of each workplace to utilise and develop the competencies and skills of its employees. An employee may have developed excellent skills in communicating the importance of environmental practices on one site. On the next site those same skills of that employee may not be utilised. Our focus is on what facilitates and what hinders the transfer of specific competencies or skills.

METHODOLOGY

The project has several expected outcomes that inform the framework of the research. These include clarifying the impact of generic competencies on the performance of work, their relationship to workplace reform, the identification of generic competency exemplars and performance indicators. We also examine how generic competencies transfer from site to site in particular occupations.

We began this project by selecting four major construction sites in New South Wales. The construction enterprises responsible for these sites have annual turnovers that placed them well above the $20 million or 1.3 % category of large enterprises identified in Construct New South Wales (DPWS 1998). Each of these large enterprises were selected because of:

1. the significant role they play in the direction and development of the construction industry in the state;
2. their relationship with the State government as a client;
3. their support for this research project either through membership of the steering committee or as a direct industry partner, and
4. possibility of providing examples of innovation.

Interviews on the generic competencies and their relationship to workplace reform were conducted with site employees. The data identified the generic competencies of communicating ideas and information (KC 2), planning and organising activities (KC 3), working with others and in teams (KC 4) and collecting, analysing and organising information (KC 1) as having an unequivocal role in the new construction industry workplace where consensus and cooperation are emphasised.

In the initial stages of the research workplace reform covered a range of construction industry issues including, OH& S training, teamwork, the way work is organised, environmental practices, industrial relations and technology.

Research design

Phase 1 had two components. Firstly, interviews were conducted that allowed for a generalised exploration of potential themes and issues using a standard protocol. After all the necessary approvals were obtained to enter each construction site, seven to ten detailed interviews were conducted with a cross-section of employees. It was decided that interviews would not be tape-recorded to ensure an easy rapport was established with every participant. Detailed field-notes were kept; accurate records of comments made and these, in turn were shown to participants for verification and in some instances their approval to quote.

The interview protocol requested general descriptive information about the company, the site, work organisation, formal training arrangements and informal learning practices. In requesting each interviewee to describe a typical day the interview then focussed on the role of the key competencies and workplace reform. Responses were recorded by the interviewers working in partnership with one taking notes. The responses were drafted and returned to the participants to allow for comment. This material was then written up in case study format. These case studies provided documentation of themes and issues to be investigated in the next phases of the project.

Secondly, an industry forum was conducted, using the data collected as a basis and providing an opportunity for a variety of industry players including, training organisations, construction companies, union representatives, government agencies and master builders associations, to meet and discuss industry issues. The forum itself contributed data to be utilised in Phase 2.

Phase 2 involved an initial analysis of the Phase 1 data that showed the generic competencies: teamwork, communication and planning as particularly significant to site performance. A survey instrument was developed to focus specifically on these — particularly their transferability. Purposive sampling was used for the follow-up interviews to allow examination of

- the transferability of generic competence
- the effects of subcontracting arrangements on generic competency transfer within the industry

This data then informed the third and final phase of the project studies the workplace reforms of occupation health and safety and environmental practices and the transferability of generic competencies within these areas of practice.

EMERGING ISSUES

Our study has identified particular tensions in the industry that warrant explication including the multiple understandings of what constitutes workplace reform, competencies and problems of knowledge transfer

Workplace reform

Workplace reform held a wide range of meanings for people across the industry including;

Removal of demarcation
Multi-skilling
Work organisation — including teamwork
OH& S training
New environmental guidelines and practices
Industrial relations consultative processes and
New technology

More recently, major changes to the way work is performed have been affected by occupational health and safety reforms. In many respects reforms in the field of occupational health and safety have been perceived to be very successful, for instance:

> "Scaffolding is 100% better than it was 10 years ago from an OH&S perspective"

Briefly, the main workplace reform trends identified in the initial data related to workplace agreements being well received — except for the issue of long hours:

> "I often work 6 days per week. I can be rostered on for Saturdays and Sundays. I was working 60 hours plus per week..."

We found this to be quite typical.

Union/management relations were identified as generally good with a clear improvement in collaboration compared with earlier eras. But while relationships are co-operative and amicable on the surface there remain some residual tensions underneath

Teamwork was crucial to multi-skilling and work organisation. It was reported from one site that multi-skilling enhanced the development of a learning culture, increased productivity and helped keep teams together. Other data indicated multi-skilling in relation to subcontractors, was still difficult perceived to have more relevance for company direct employees than subcontractors. This can be problematic when a site relies heavily on sub-contractors performing specialist trade/task roles.

Management styles varied with individuals but all project managers were "reform conscious".

There remains a lack of formal accreditation for experienced competent construction workers.

Environmentally sustainable construction was practiced, but not necessarily supported by all workers:

> "Waste management and recycling is being taken really seriously at the site. Getting all the subbies to take the environment seriously is a challenge..."

Training

The current emphasis on environment & OH&S issues has lead to their becoming very strong drivers of training.

Forum participants in Phase One of the research raised the issue of a fragmented Industry structure. Participants felt there is a need to address the implications of labour hire and out-sourcing on training and skills supply. Currently the labour hire companies are meeting the demands of the industry although they may have little or no involvement in training.

The Industry has been slow to respond to the promotion of the life-long learning agenda promoted by ANTA. The workplace reform that has occurred has driven training developments in the construction industry. Forum participants emphasised the need for the industry to develop a learning culture.

Debate at the Forum also arose concerning 'who is responsible' for driving the cultural shift from training to learning. This concern included questions about how to implement change, regulation through legislation and self-regulation. Participants acknowledged that the industry historically has tended to operate in an opportunistic way. Some key training initiatives however were perceived as offering a catalyst to change, and assisting in integrating learning into the industry's culture.

The processes of tendering and the reliance on subcontracting and labour-hire arrangements mean reforms sometimes have to be enforced:

> "The problem is that recycling takes time and this can be costing the subbies money."
>
> "They're pressured because of the tenders they offered and if there is a delay...they have to work longer hours and weekends to get the job done. They're being squeezed..."

Generic competencies

A variety of interpretations and understandings of Competency Based Training are prevalent. There is also continued widespread confusion about what the competencies actually are.

The skills requirements of the construction worker are changing and are underpinned by clusters of the generic competencies.

Analysis of the competencies; using mathematical ideas and techniques (KC 5), solving problems (KC 6), using technology (KC 7) and cultural understandings (KC 8) was more problematic than the first four. Interviewees were equivocal about their relevance; some of the skills relating to these competencies were so implicit interviewees did not necessarily recognise their own skill. Also the link of these competencies except KC 8 to workplace reform was equivocal.

There is indication of an attitude in the industry that you either have a skill or you don't, and that the skill is something innate that cannot be learned:

> "We had one foreman manager who was really good...He was organised, he wrote everything down...he had Man skills...You can't bottle it."

If industry improvement is a goal and involves the development of the generic competencies, then these assumptions about skills that can't be learnt has to be challenged.

The forum participants identified the generic competencies in the following skills areas, OH&S, language and literacy, environment and new technologies. The discussion also included the poor levels of communications within the industry. This links into the significance of KC 2.

The following direct quotations from construction workers illustrate indicate clustering and relevance of some of the competencies:

On teamwork:

> "The work gets done quicker"
> "A team can solve problems together"
> "Some jobs can't be done without a team"

On effective communication:

> "Facilitates teamwork"
> "Helps with problem solving and learning"

> "Informs the workers, facilitates inclusion, helps them do the job well"
> "Helps with problem solving and learning"

On planning:

> "I plan the job from the beginning, breaking it down into parts"
> "Planning and deadlines are important because each job is dependent on others..."
> "Lots of subbies don't plan properly — don't bring the right equipment, don't think ahead."

Transfer Knowledge and Skill:

The transfer of knowledge and skills was found to be quite inconsistent. For instance one electrical Foreman interviewed compared the experience of his current position where little communication or joint problem solving occurred, with his last job:

> "[It] went really well because there were 5 buildings and each had a Foreman and there was a Senior Foreman — so we could all help each other problem solve. There was teamwork and joint problem solving. It meant the overall task was smaller."

Another interviewee pointed out that while the workers had learnt a lot the company had no mechanism to retain and build on both the experience and the attitudinal change:

> "There has been a fundamental change in the attitude of the workers" [to environmental issues]...[The company] "don't have a dedicated Human Resources department...This means they make no investment in the future [they] are not very good at developing their employee skill resources."

On a different site, an interviewee commented:

> "I have a reputation for enforcing occupational health and safety. I mean business. I was brought onto the site because safety was going to pot..."

The company relied very much on his individual skill rather than identifying what those skills were and developing mechanisms to replicate those skills.

DISCUSSION AND CONCLUSIONS

This paper provides an outline of the project to date. The data and results detailed outlined make clear the range and depth of the issues concerning the construction industry.

The generic competencies of communicating ideas and information, planning and organising activities, working with others and in teams and collecting, analysing and organising information play an unequivocal role in the new construction industry workplace where consensus and cooperation are emphasised. Workplace reform is changing the face of the industry, as occupational health and safety practices will attest. Ongoing reform is still occurring within OH&S and environmental practices. The competencies appear to be good indicators of how thoroughly reform has occurred, a site with good teamwork is also a productive workplace.

Workplace reform covers a range of construction industry issues including, OH& S training, teamwork, the way work is organised, environmental practices, industrial relations and technology. Generic competencies are integral to these reforms to the workplace; indeed the competency working with others and in teams is also identified as essential to reform progress.

As mentioned, the Competencies acknowledged by the industry to be significant and that link into workplace reform are Communicating Ideas and Information (KC 2), Planning and Organising Activities (KC 3), Working with Others and in Teams (KC 4) and collecting, Analysing and Organising Information (KC 1). The other four competencies (KC 5, 6, 7 & 8) were found to be problematic for this research because their relationship to workplace reform was ambiguous and fall outside the project scope.

Industry reform is by no means straightforward, affected by the competing forces as have been outlined in this paper and the industry is large and a major source of financial activity and employment. In New South Wales it has been undergoing immense changes in the last decade and this is unlikely to halt in the near future. The industry stakeholders have been attempting to work together to develop a more consensual approach and the State government is encouraging change and regulation through the development of innovative policy and legislation. The work being done in policy regarding occupational health and safety and environmental practices, is significant, although there are indications in this research that there is still a gap between policy and practice. A source of tension in the implementation of any change, is how to include the subcontractors and the increased out-sourcing of labour in learning and training practices. The industry's 'dollar and material outcomes' focus limits what is achievable in learning and training.

Nonetheless the importance of communication, teamwork, planning & organising and collecting, analysing & organising information appear to be self-evident. In reality cultivation, recognition and enhancement of these skills do require deliberate learning and training strategies. And the same applies to the transferability of generic competencies.

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The changing nature of work and the new politics of literacy: implications for VET in Australia

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Economic, political and social developments associated with the forces of globalisation have far-reaching implications for the nature and provision of social programs and public services, including Australia's vocational education and training policies and programs. Associated with these developments is a renewed political focus on literacy as illustrated by David Kemp's 1997 statement that "at a time of rapid technological change and pervasive internationalisation, literacy skills contribute to the increased competitiveness and productivity that the national economy demands ...[The National Literacy Policy] aims to extend an active, critical, productive and engaging literacy in the complex and mixed modes in which literacy is embedded in Australia's rapidly changing, technological, cultural and economic circumstances."

What I'm presenting here today is not an account of a formal piece of research or a report on a specific research project in the VET area. Rather it is a very brief summary of a voluminous amount of data amassed as part of an ongoing response to questions and issues around these issues raised through reading/analysing policy and program documents, listening to politicians, various business talking heads, and system bureaucrats and personnel, media commentators and the like.

I suspect Dr Kemp himself didn't write the above quote which is attributed to him, but he probably did this one, which puts it in more 'everyday' terms for the media:

> The system is failing tens of thousands of children. It is feeding the unemployment queues and denying children basic skills to participate fully in society. ... It is a national disgrace.

This is not just the view of the Coalition Government. Look for example at this quote from the ALP's Mark Latham in his widely acclaimed 1998 book Civilising Global Capital. New Thinking for Australian Labor (pp 245-246):

> ... educational services in disadvantaged areas need to provide the services by which parents can be trained as effective educators in the home. This might involve courses at the local school itself, whereby parents are able to enhance their literacy and numeracy skills, knowledge of the school curriculum and the general practices of good parenting. ... These parental responsibilities form a logical part of the case management approach to socioeconomic disadvantage. For parents dependent on welfare support there can be no excuse for not upgrading their skills and effectiveness as educators in the home. This responsibility needs to be written into case management contracts, the fulfilment of which determines the ongoing allocation of income support. Sanctions should be applied to those transfer payment recipients unwilling to accept their proper responsibilities as home educators. Parental responsibility and effort are all important. ... [This model] allows the public sector to develop an integrated approach to the twin goals of employment creation and learning enhancement.

Within this discourse, literacy and employment are inextricably linked, with the suggestion that literacy, or lack of it, is a key determinant in workforce participation. "If everybody becomes literate then everybody will have a better chance of getting a job; conversely ..." The question of the relationship of work and the skills required by workers to the global economy thus becomes one of singular importance and contesting arguments are put about the affects of globalisation on the future of work. At one extreme is the argument that schools needs to produce highly skilled, highly literate, flexible workers to take advantage of the sunrise industries that will form the next major workforce boom while at the other it is argued that because of globalisation much of the work in VET is training for jobs that don't exist and that the major growth areas for work will be in low paid unskilled jobs.

Prominent educator Pat Thomson says:

> This level of syllogism stuns me. Employers looks for ways to discriminate between people. Literacy is one obvious marker. An employer is more likely to choose a literate person over an illiterate one I would think. But if everyone is literate, then employers will just look for another way to choose. If some people

> are more literate than others, then the employers will go for the more literate - and why not - or some other sort of discriminatory measure. It does not increase the number of jobs available just changes the terms of the competition. The politics of ill/literacy when pinned to employment, using fallacious arguments about employment prospects, not only holds out false hope to the unemployed, but basically works as discipline. It allocates responsibility to the illiterate who are presumed thick or deviant and to teachers who are said to be wilful, trendy, Chardonnay swilling members of the chattering classes etc.
>
> Is it an accident that the ill/literacy politics have arisen at the very time the government is making a renewed effort to shift industrial relations, drive down wages and maintain a junior wage system? Peter Costello recently suggested we should go the American policy solution, which is to garner more employment at the expense of decent wages and full time work, not to mention an increase in the prison population. Presumably if workers are barely literate, then you don't have to pay them much, and if teachers are hopeless then you need private sector literacy providers rather than put money into the public sector.
>
> Wanting the population to be literate seems to me to be a good thing to which a national government should aspire. A policy of literacy for all would see the adult and community education sector and disadvantaged schools get considerably more support and an end to the culture of blame. A literate population does not need to be justified by economic argument, unless of course it comes from a government that has substituted an economy for the idea of a nation.

The positioning of literacy, as defined by key politicians on both sides of the so-called political divide in Australia, and popularised by the media, as a goal of public policy, has major implications for educational institutions. Literacy, like the key competencies and various other initiatives are espoused as [unproblematic] solutions to overcome or ameliorate our unemployment problem, particularly where youth are concerned.

Much of this discourse seems to be based on a fairly reductionist view of the complex relationship between education and the economy which goes pretty much like this: that in the contemporary highly competitive and integrated global economy, economic prosperity can be attained only with a highly skilled and trained labour force, which our schools are failing to provide. There is much talk about the alleged shortcomings of the education system which is both failing our youth and responsible for the poor health of our economy. As one put it: "Our high schools are turning out graduates who are, if not functionally illiterate and innumerate, certainly unprepared to meet the demands of the contemporary labour market" .... Our young people are being told that if only they had the right skills employers would eagerly employ them and that the well-being of the country is harmed because young Australians are not acquiring the skills that our changing, and increasingly globalised, economy requires. It would seem that if only Australia's youth had the right skills and attitudes there would be abundant jobs and employers would be falling over themselves to employ them.

Such criticisms have been given further support by the bi-partisan pursuit of competitiveness, which despite the unclear and elusive nature of the term has become a major goal of State and Federal policy. According to this emergent orthodoxy, the material prosperity, and even survival, of the state and nation, depends on international competitiveness. While there are a number of variants, the basic argument goes like this.

Historically, Australia has prospered by exporting its raw materials and importing finished goods, and by protecting a basic level of heavy industry. In such an economy, it is argued, high levels of education were unnecessary. Most of the time, there were plenty of jobs for whoever needed them. Now however conditions have changed. Presented with the threat of global competition, we are told that the future depends on high-technology, on a skilled workforce, and on high levels of education - literacy.

The realignment of Australia's whole educational system to economic performance becomes an imperative, and the alleged shortage of highly skilled workers is touted as evidence for the need of an increased role for the private sector in education 'to supply a great deal of the skill upgrading required in a technologically driven society.' The 'reskilling' of Australia and the restructuring of the public education and training system to make it conform to a philosophy which views the primary mission of the system as the production of a good workforce to satisfy the needs of business become national priorities as high-skill jobs go begging.

This mission is elevated to the status of being the key to our economic future. Out efforts in education, training, literacy - whatever - will determine 'whether we become an economic powerhouse or are consigned to the dustbin of history'. But, how does this meet with reality. Actual studies of work and workplaces don't bear this out. The most sophisticated job forecasts in western industrialised countries - eg. US Bureau of Labour Statistics, Canadian Occupational Projection Services - show that over the next decade most new jobs will be towards the bottom of the skill range. Then there are large employers like McDonalds, which as fast food goes, is considered to be a high tech workplace. Everything is programmed so that an untrained workforce, with a short period of training, working relatively short shifts, with a high employee turnover, can turn out a remarkably consistent product - with the odd regional variation - that meets the employers' specifications - and consumer demand. And, rather than being an exception, McDonald's use of technology to deskill work is the model towards which most employers are striving. Such an approach cuts labour costs and allows increasingly sophisticated production to be shifted to locations with little skilled labour.

As one economic analyst has written: Why, in an increasingly high tech work world, that displaces and deskills more and more workers every week, do corporate pronouncements endlessly promote sophisticated education and training as the key to national/corporate competitiveness and worker survival? The most common answer to this sort of question is that the deskilling is a response to an insufficiently skilled workforce. More emphasis on training will reverse the deskilling.

But does the global evidence support this? So far there is little to indicate that public and private investment in education and training are going to be a major factor in determining multinational capital's decisions about investment in Australia.

There does seem to me though to be evidence to suggest that this emphasis can be a form of blaming the victims for the fact that economic decisions such as deregulation, privatisation, free trade, high real interest rates and tight monetary polices have created unemployment an underemployment and a decline in our manufacturing base.

Talk of training can be a way to camouflage the reality of corporate power and control. The largest corporate enterprises in Australia account for a disproportionate share of all assets and corporate profits, and many are subsidiaries of transnational giants like General Motors, IBM, General Electric etc whose annual sales figures are larger than many countries' gross national products.

Further, automation, technological developments, the increased use of temporary workers, contracting out, de-unionisation and the transfer of production to low wage countries are creating systemic unemployment in the developed world as well. Major factors in these developments include the deliberate creation of a contingency workforce: part time, no pensions, no security, no benefits, no union representation, and the dominance of the 'field of dreams' rhetoric - "give them training and the jobs will come" - whereby millions of young people are being trained for jobs that don't exist where they live. In developing countries, transnationals are using twenty-first century technology to operate early nineteenth-century economic regimes, using high-tech, low-wage electronic sweatshops (Barlow, 1994; Kuehn, 1994).. Just how education/training/literacy programs can provide a quick-fix solution to such a scenario is not clear.

It's because of these sorts of issues that I have a lot of trouble with what I keep hearing and being told about the transformative and 'life-saving' powers of various education/training programs and the claims that they are the key to our economic salvation and future, and that our capacity to attract industry and maintain a healthy economy is dependent on the literacy levels of our students and workers.

As my South Australian colleague Nigel Howard puts it:

> For all the work and energy put into VET over the last five years in South Australia there has been no comprehensive evaluation that suggests that it is working to improve the work chances of students. We have the second highest youth unemployment rate in the country and the second lowest retention rates. As educators it is important that we engage with reasons why this is happening and not recourse to the glib/flip/facile responses of the politicians et al. ... More and more we begin to fear that what we are doing is training for jobs that don't exist and equipping disadvantaged for participation in labour market schemes that seek to place the blame on the unemployed as rate of long term unemployment rises.

The fundamental questions we need to ask:

What is that young people need to know and to be able to do in order to capably negotiate their way through the changing patterns of work, leisure and identity?

What provision do schools need to make through their Vocational Education and Training Programs work with young people and their communities to ensure all students can develop these capabilities?

What provision do schools need to make through their Vocational Education and Training Programs work with young people and their communities to ensure specific groups of students can develop these capabilities?

Why is it important to understand Youth Culture in relation to Vocational education and Training?

Within this framework, where does literacy 'fit'?

Quoting from Nigel Howard again:

> Belinda Probert in an address to the first National VET/NET conference concluded that the aim of Vocational Educational Curriculum in Schools was to develop in students the competencies to survive and the critical facilities to know what is going on".. ie. the curriculum provision of VET must enable all young people the capacities to negotiate changing patterns of work, skills in accessing and keeping work and the critical knowledge to understand what is going on. If we are to work with our students to develop their capabilities to function and enjoy a decent life we as educators must learn, ourselves, to negotiate within the changing contexts of youth culture, globalisation and the institutional practice of schools. The agency of young people is not absolute. Their relationship with work is mediated by class, race and gender and by location. The ability to find, get and keep a job will be affected by the jobs that are available and the practices that are used to select workers. It will be determined in part by economic policy and in large part by a regional economy. Schools need to work against the grain and do what they can to meet the needs of students in an economic and policy environment that will become increasingly hostile. Work will not be defined as a linear career path but rather a series of careers and opportunities stitched together with periods of leisure and unemployment. Schools must develop the skills which enable all young people to negotiate their way through these changing patterns of work and leisure and identity.

Key Competencies in training packages

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Office of the PVC (Teaching & Learning) RMIT University

This paper reports on the recent research project, funded by the Australian National Training Authority, to determine how effectively, or otherwise, the Key Competencies are being integrated within Training Package specifications.

The research used interviews, focus groups and questionnaires to obtain the views of Training Package developers, providers and end-users. It canvassed considerable debate on how best the Key Competencies should be identified and integrated within training package qualifications.

PROJECT OUTLINE

The project was undertaken in two stages. The first stage consisted of a data collection process using individual and group interviews to discuss issues concerned with the specification of the Key Competencies within Training Packages and their development within Training Package programs. This data was then analysed and an interim report was prepared.

The interim report was then distributed to all participants in the stage 1 interview as well as providers and Training Package developers from a wider selection of Training Packages. Recipients were invited to either attend a focus group to discuss the findings of the interim report or to fill in a questionnaire response. This process enabled a validation of the data collected in Stage 1 of the project.

Overall, the Training Packages which were specifically considered were:

	Stage 1 & 2		Stage 2
FDF98	Food	UTL98	Lifts
ICP99	Printing and Graphic Arts	CUL99	Museum and Library and Information Services
TDT97	Transport and Distribution		
BSA97	Administration	RUV98	Veterinary Nursing
CHC99	Community Services	AUR99	Automotive
MEM98	Metals and Engineering	WRR97	Retail

WHAT THE DATA TELLS US

Participants in this project came from a diversity of roles and functions with respect to development and implementation of training packages. They included: the Executive Officers (or their delegates) of National Industry Training Advisory Bodies (ITABs); those involved in developing Training Packages; teachers from Registered Training Organisations (both TAFE and private providers) and representatives from industry enterprises currently implementing or preparing to implement Training Packages.

The participants also had different levels of understanding of and exposure to training packages. Consequently, their responses varied and represent a wide range of understandings and familiarity with both Training Packages and the Key Competencies. However, there were some distinct trends which emerged and these are summarised below.

The Key Competencies are valued and implicit in endorsed competency standards

There was general agreement as to the value of the Key Competencies, their acceptance and value in the workplace, and the need for them to be part of vocational education and training. There was no general agreement as to how this might be achieved.

It was also generally agreed that the Key Competencies were implicit in the endorsed competency standards and that the achievement of units of competencies implied that the Key Competencies would also have been achieved to the level specified.

However, many participants expressed their concern about the lack of explicit information about the integration of the Key Competencies within Training Package specifications. It was thought that this led to an unrealistic reliance on the ability of those delivering programs under Training Packages to recognise and address the integral and strategic role played by the Key Competencies within specific units of competency.

Knowledge and understanding of the Key Competencies were extremely variable especially among providers of training

Whilst there was general support for the Key Competencies, some participants were unsure as to what they were and had only limited understanding of their function both in formal training situations and in the workplace.

Participants expressed some confusion as to which key competencies are being referred to as there are a variety of meanings which can be conveyed by the term "key competencies". For example, some referred to the set of Key Competencies defined by the Mayer Committee in their 1992 report Putting Education to Work. Others identified another set of generic competencies which is especially valued within an industry/enterprise context. This set may overlap with the set of Key Competencies defined by the Mayer Committee but the language in which they are expressed and their nature are specific to and characteristic of the industry or enterprise context in which they are used. A third group referred to some enterprises and industries having specific technical and generic competencies which they consider to be "key" to their productivity and efficiency. These competencies might include OH & S, waste minimisation, customer/client relations, housekeeping, quality and workplace communication.

There is widespread confusion about the levels used in conjunction with the Key Competencies especially among the end-users of Training Packages

The confusion about the levels associated with the Key Competencies seems to be based in a number of misconceptions and adverse practices. Many of those interviewed in the research project believed that the levels assigned to individual key competencies were the AQF levels; other interviewees associated the levels with the relative importance of the Key Competencies. Thus, level 3 indicated relative unimportance whilst level 1 was clearly significant or vice versa; very few of those interviewed as end-users of the Training Packages had read the information provided for them within the Training Package materials on the subject of the Key Competencies; and some interviewees hadn't noticed that there were levels assigned to the Key Competencies.

This confusion appeared to be greatest where the Key Competencies were considered in relation to a qualification rather than with individual units of competence.

The cause for much of this confusion lies with the way Training Packages are being published and in some undesirable past practices with respect to curriculum documentation which are persisting through the transition to Training Packages. These include: the publication of the explanation about how the Key Competencies have been included within the units of competency in a separate volume from the actual units of competency. This has wider implications on the possible misuse of Training Packages.

This misuse arises from assumptions made by teachers and trainers who only have access to part of the package; the use of a table showing the Key Competencies and the level at which they are included within a unit of competency with no reference to a key as to what is meant by the table or how it is to be interpreted and used; and the common practice within RTOs to give teachers and assessors copies of those units of competence for which they have responsibility only.

In the case of NSW providers, the use of centrally developed curriculum for delivering the Training Packages means that teachers may not have ever had access to the Training Package.

All these situations mean that teachers often don't develop an enlarged perspective or "big picture" of the students' learning experience and the organisational framework in which they are working. It is, therefore, probable that they may not understand the context for which the training package has been developed and the interrelationships and packaging rules which a Training Package defines. The development and application of the Key Competencies is closely associated with the integration of different competencies and their transfer across differing contexts and work situations. Such integration and transfer is unlikely to occur if those facilitating learning or assessing competencies are themselves unaware of the "bigger picture".

Training packages specify applications of the Key Competencies not their development

This opinion was stressed by several Training package developers and is fundamental to understanding the complexity of ensuring that vocational education, training and assessment which occurs within the context of Training Packages is underpinned and enhanced by the Key Competencies. Training packages are designed to specify the required outcomes of training and/or workplace learning. It is the RTO who must use the professional expertise of its staff to determine how best these outcomes might be achieved and assessed (within the framework of the assessment guidelines).

It is, therefore, the provider who must facilitate the appropriate development of the Key Competencies to ensure that the required competencies can be achieved. The challenge is to ensure that the relationship between units of competency and the Key Competencies is sufficiently explicit to ensure its recognition by teachers, workplace mentors and assessors.

Training packages require substantial change in vocational education, training and assessment practices

Many, though not all, of the participants recognised that Training Packages effectively shift much of the responsibility for the provision of detailed curriculum and support materials from the state to the individual training provider. Whilst the state (through ANTA) retains the responsibility for establishing the outcomes of training and the quality and recognition framework in which vocational education, training and assessment occur, the responsibility for designing, developing, implementing and supporting effective training paths to meet student needs becomes the responsibility of the registered training providers (RTOs).

Such a shift represents both an opportunity and a threat to teachers and trainers. Whilst it recognises the professional expertise of teachers and trainers to identify the best way to achieve educational objectives, its introduction comes after a period of reliance on pre-packaged learning support materials and curriculum guidelines and at a time when fewer VET teachers and trainers have had access to formal educational training other than workplace training and assessment programs.

The introduction of Training Packages also represents a substantial change in vocational education, training and assessment practices at a time when most RTOs are working under lean budgets and staffing ratios. The relative high proportions of casual staff and/or those with only minimal or no formal educational training in course design and development and support material development thus becomes problematic. The short lead-in times between the release of the Training Packages and their implementation exacerbates this problem.

Such a change process must be managed over a considerable timeframe if the potential of Training Packages as a framework for flexible, responsive and effective training is to be realised. Substantial support for professional development of teachers, trainers and mentors within the system is essential.

Substantial professional development will be needed to ensure that VET teachers and trainers have the requisite skills in: planning educational programs to minimise unnecessary repetition and to maximise connections between different units of competency; designing and developing support materials to enhance learning; facilitating workplace learning and working collaboratively with workplace mentors and active learning techniques which support holistic and contextually based learning

It is not surprising that in an environment of substantial change, issues such as the Key Competencies and basic educational skills are being lost or ignored while teachers grapple with having to make substantial changes in their everyday practice and to become more workplace and student centred. However, it is a shift worth fostering and requires effective support over a sustained period.

Employers value the Key Competencies and they are often reflected in their employment selection criteria

Many participants noted that employers, within their respective industry areas, used generic skills as the basis of their selection processes for employment. Whilst base qualifications and technical skills are seen as important, employers were reported as saying that whereas technical competencies could be enhanced within the workplace, the remediation of generic skills, such as the Key Competencies, was a much more difficult proposition. This view was based on a belief by employers that they, or their staff, did not have the necessary educative competence for this task.

As a consequence of this, many of the research participants identified the failure to explicitly develop the Key Competencies as an equity issue.

The contextual nature of the Key Competencies makes their development within a training package framework simultaneously easy and difficult

Down (1998) noted that, within workplaces, reference to the capabilities based on the Key Competencies were often referred to as "experience, nous and commonsense" (p. 102). This view is also reflected in other research reports concerning the function of the Key Competencies within workplaces where the concept of the Key competencies embraces "both actual skills and underlying, integrative processes" (Marett & Hoggard 1996, p. 66).

Most participants in this study recognised that it is the covert, implicit nature of the Key Competencies within Training Packages which makes them simultaneously integral to workplace competence and difficult to identify and integrate within training practice.

Participants felt that the issue was one of ensuring that the integrated presence of the Key Competencies within units of competence was recognised by those implementing Training Packages rather than complicating training package documentation. It was generally agreed that this was a RTO responsibility and most developers expressed the view that central advice on this issue belonged in the training package support materials rather than in the endorsed components.

Participants involved in implementing Training Packages expressed a preference for a more explicit statement of the connection between the Key Competencies and the units of competence. It was felt that unless this link was clear and strong, the Key Competencies could be ignored in assessment and this would weaken the effectiveness of vocational education and training delivered under the framework of a particular Training Package.

A number of participants expressed concern that many training providers might view the Key Competencies as "nice to know" rather than fundamental components of the units of competency. It was believed that this view is reinforced both by the lack of explicit reference to the Key Competencies within the specification of the units of competency and the separation of information on the development of the Key Competencies and the specification of competency outcomes. This added to a belief that many providers saw the Key Competencies as an optional add-on.

CONCLUSIONS AND RECOMMENDATIONS

The first recommendation is that clear advice is provided to developers and revisers of Training Packages (and Industry Competency Standards) on the explicit integration of the Key Competencies within Units of Competency.

A suggested strategy for achieving this is that when competency standards are developed or revised, then the performance criteria are framed around the technical skills required, the Key Competencies involved and the basic education skills needed.

The second recommendation is for the funding of professional development for teachers and trainers on the implementation of Training Packages which focuses on the development of learning paths which meet the needs of specific target groups and which enable the achievement of Training Package qualifications; strategies to ensure that the Key Competencies are a fundamental part of vocational education and training delivered under Training Packages and the development of learning strategies and resources to support the development of the Key Competencies.

This is most urgently needed. The successful implementation of Training Packages relies on the pivotal role of teachers and trainers to plan and construct suitable learning pathways, create learner-centred learning environments and facilitate effective, quality and consistent teaching, learning and assessment. it is , therefore, essential that there is greater expenditure on meaningful professional development which enables VET practitioners to develop and enhance their professional expertise to meet this challenge.

The third recommendation was that any professional development with respect to the Key Competencies be integrated within professional development relating to the implementation of Training Packages and not separate from it.

This was seen to be very important in order to avoid a perception that the Key Competencies are a "nice- to-know" or an optional add-on. The Key Competencies both underpin units of competency and also play an important role in transforming what has been learnt in workplace practice. It is, therefore, important that they are seen as integral to the development of competence under Training Packages.

Other recommendations were concerned with the co-ordination of professional development mechanisms and the production of learning resources. It was suggested that a network approach to Professional development be used with each group producing resources which can be shared across all VET providers and which help to overcome some of the current barriers to the effective implementation of Training Packages and the explicit specification of the Key Competencies within them.

The project has produced useful insights into the understanding and ability of teachers to recognised the integration of the Key Competencies within Units of Competence and the need for them to integrate the Key Competencies into their teaching practice. The introduction of Training Packages puts an end to the provision by the State of centralised curriculum and detailed resource materials which have effectively deskilled VET teachers and trainers. Training packages require teachers and trainers to construct their own curriculum in order to rapidly respond to training needs. This is critical in the delivery of workplace training as no two workplaces are alike and training needs to be tailored to the needs and nature of each workplace.

It also demands an approach to skill development which is holistic and contextual and which relies on practical application and structured reflection to enhance the learner's skill to learn from experience. The Key Competencies are a fundamental tool in this development and their integration within Training Package provision is, therefore, essential.

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Facilitating educational growth: the use of learning mentors in the DipFE program

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Every year, a large number of adults enrol in "return to study" programs with Adult & Community Education (ACE) providers with aspirations to move into more formal educational paths. A few do manage the transition into more formal tertiary institutions but many do not. For example, in 1998, ACE providers stated that only 4 to 5 per cent of their students gained higher education places and only 11 per cent gained TAFE places (Teese, 1999). Also, 42 per cent of ACE students who applied through VTAC in 1997 for 1998 tertiary education places were rejected, compared with 14 per cent of school students (Teese, 1999).

So who are these people and how can we better meet their needs? Let me tell you about two of them.

CASE STUDY 1

Fiona is 42 years old. She left school at Year 11 to work in an office and then left work to raise a family of 4 children. At school, she was an average student in most subjects. Her best subject was Mathematics. Her teachers recommended that she continue to Matriculation and university but her father did not hold with too much education for girls and was not prepared to support her past year 11.

Whilst working as a mother and homemaker, she has been very active in the Parents' Associations of the local kindergarten, primary school and high school. She was the coordinator of the tuckshop committee for the Kookaburra Flats Primary School and on the executive of both the kindergarten and high school associations.

She has some computer skills, having helped her children to research material for assignments and has used Word to type letters, tuckshop rosters etc.

Two years ago she started studying at the Community Centre at Kookaburra Flats and has just completed the Certificate of General Education for Adults (Level IV).

CASE STUDY 2

Amin left school midway through Year 11 when he was offered a fitting and turning apprenticeship with a local engineering firm. Twelve months into his training the firm was taken over by a larger company and as part of the ensuing rationalisation, Amin lost his job. He continued his training with a Group Training Company but this meant that he had three employers in fourteen months in different locations which involved him in a lot of travelling. He became discouraged and found he was not getting any satisfaction from his work so he left and got a job on the production line of a carpet manufacturer. He worked there happily for 8 years until the company moved its operations offshore and he was made redundant.

Unable to find a full-time job, Amin got some part time work with a mate Josef who ran a small computer retail outlet. He also attended the Fotherington Neighbourhood House and completed his CGEA (level 3). During this time, whilst he was juggling part-time work and study commitments together with the care of his two children one day a week, he became interested in a career in health and medical sciences.

In 1999, RMIT, as the lead agency of a consortium with the University of Ballarat, Holmesglen Institute of TAFE and three Adult, Community and Further Education (ACFE) regions applied for and received funding from the Office of Training and Further Education (now the Office of Post-Compulsory Education, Training and Employment) to develop and trial a program which would enable better transition to formal tertiary education programs for learners undertaking return to study programs with ACE providers. The resultant program has been accredited as the Diploma of Further Education.

The Diploma of Further Education (DipFE) provides an alternative pathway into tertiary education programs for those whose personal, geographical, family, educational history and other circumstances means that they are disadvantaged and/or unable to equitably participate in other entry mechanisms.

The philosophy behind the development of the Diploma of Further Education is very much that of empowerment through the development of the capacity for independent, autonomous and self-directed lifelong learning. In the Report prepared for UNESCO, Delors (1996) states that learning throughout life is based on four pillars: learning to know; learning to do; learning to live with others and learning to be.

The ACFE Board has taken these four pillars and expanded them into eight lifelong learning goals, which provide a reference point for all curriculum written within the new conceptual framework for Further Education. That is, learners will be encouraged to understand complex systems that interact unpredictably; identify and integrate existing and emerging personal, local, national and global perspectives; prosper with difference, paradox and multiple sets of realities; see and make connections between the past and present and the future; encourage sustainability in relationships and the environment; engage in a process of change, privately and publicly, civically and occupationally, throughout life; extend learning styles and repertoires and develop insights through questioning, through asking 'why?' and 'what if?' as well as 'what?' and 'how?'. (Bradshaw 1999, p.23)

PROGRAM CHARACTERISTICS

Shift to autonomous and independent learning

The Diploma of Further Education curriculum has been designed for those seeking to prepare themselves for the challenges of tertiary education. It thus aims to enable learners to work towards these educational goals through a learning experience based on recognising and encompassing the multiplicity and connectedness of learning, the critical intelligence it requires and the transformation inherent in growing autonomy and independence and in the exercise of thoughtful action.

Recognition of existing competence

The course will start with those outcomes which learners are already achieving with ACFE provision and build on this base. As the students move through the program, they will undertake TAFE and Higher Education modules. This will not only increase their skills and knowledge but also their confidence as it will enable them to become familiar with their intended educational destinations, cultures and practices.

Individually negotiated

The Diploma of Further Education is a framework curriculum which will enable a multiplicity of learning pathways to meet individual needs and destinations. Through its core modules, it provides a mechanism for the learner to explore their own learning needs and to map a learning program using modules from accredited vocational education and training and higher education programs and courses. This learning program will be negotiated with staff from the destination higher education institution to ensure that it meets adult entry requirements and selection process criteria. The negotiation process will also prepare students for their future studies by helping them to understand the values, assumptions and conventions which underpin different forms of higher.

Generic outcomes

Learners in the Diploma of Further Education program undertake four core modules. These modules enable learners to organise and monitor their own learning and to develop explicit consciousness of their strengths, weaknesses and preferences as a learner. They also enable learners to explore different tertiary options and to develop an individual learning path through which they can prepare themselves for entry into the tertiary course of their choice.

The outcomes of the Diploma of Further Education will be the enhancement of the learner's personal knowledge through self-assessment; ability to learn and to self-manage one's learning; information literacy; research skills; writing skills; specific knowledge and skills related to a specific HE destination and familiarity with higher education environments.

Assessment by portfolio

As part of the Diploma of Further Education, students will develop a portfolio which provides evidence of their learning and competence and which, in addition to having intrinsic value to the student, will be useful in negotiating adult entry to the higher education institution of the student's choice. They will have a learner mentor who will be able to assist them to develop and validate their learning pathway and move towards autonomy and confidence as learners.

Learning mentor

A key feature of the Diploma of Further Education is the role played by the learning mentor. The learning mentor plays a key role in supporting the learner as he/she develops the necessary competence and confidence to move from learning dependency to independency; from an intimate learning environment to a larger, institutionalised learning environment; from a prescribed learning path to an individually developed learning pathway and towards learning autonomy and empowerment as an individual to negotiate the resolution of one's learning needs

Skill development at point of need

The intermeshing of the Reflective Learning and Planning modules at each stage of the Diploma of Further Education program provides a mechanism for students to learn skills in context and at the point of need. Skills are therefore being applied as they are developed and integrated into the learner's cognitive structures in a form which is readily retrievable.

Reflection and self-assessment

The development of habits of active and critical reflection and of the capacity to accurately self-assess one's learning progress are key features of the Diploma of Further Education. Learners are encouraged also to recognise the multiplicity and diversity of approach inherent in all learning and to develop an accurate appraisal of the interaction of context, learner and learning.

So how does the Diploma of Further Education work in practice? Let's return to Fiona and Amin's story.

Fiona enrols in two modules within the DipFE, that is:
VBJ 506 Reflective Learning and Planning 1A and
VBJ 507 Reflective Learning and Planning 1B.

Initial Learning Pathway

As part of her work towards these modules she designs a learning pathway which she (and her learning mentor) believe will help her prepare for university studies in Marketing. The development of this learning pathway involves Fiona in developing a greater awareness of her strengths, weaknesses, aspirations and stumbling blocks, new computer skills as she learns to access material from the WWW and also planning skills as she develops an action plan for achieving her educational goals.

Entry Requirements and Pre-requisites

In conjunction with her learning mentor, Fiona looks at the entry requirements for the Diploma in Business (Marketing). The following entry competencies are specified:

Writing and Communication Skills:

Prepare and present written documents in language and format appropriate to a specific brief
Communicate ideas and information orally and in written form
Deliver oral presentations of information relevant to a specific task

Computer Skills:
Apply basic word processing skills

Research and Analysis:
Collect, organise and analyse information
Evaluate information for relevance, accuracy and completeness

Financial Management and Budgeting:
Apply basic mathematical skills

Team and Personal Management:
Work in teams with minimal supervision to achieve agreed outcomes
Work independently
Demonstrate time management skills

Fiona considers that her CGEA studies and the work she has already completed in her core DipFE subjects plus her experience in managing a family, working within a fairly tight budget and coordinating the school tuckshop roster has enabled her to develop these entry competencies. To make sure, she rings the Mavis McKinnon Institute of TAFE and makes an appointment to see a course adviser from their business studies department. She takes her partially completed portfolio to the meeting and the course adviser agrees that she would be eligible for entry, He also gives her some idea of when the modules she has chosen would be offered in the coming year.

None of the modules she has chosen have specified pre-requisites.

Negotiating the Learning Pathway

Fiona then rings the nearest University which offers a Bachelor in Business with a Marketing stream and makes an appointment to meet with a course adviser. At this meeting, she discusses her choice of a learning path with the adviser, Ben. He agrees that she has chosen a well-balanced set of modules. He suggests that the essay which is part of Reflective Learning and Planning 1B should outline her understanding of Marketing and her reasons for wanting to pursue a career in this field.

Fiona and Ben then negotiate certain modules which would be conditional to her entry into the Bachelor of Business and makes suggestions as to the evidence she should provide to the selection officer when she applies for Adult Entry.

He also suggests that Fiona might model her research project to be undertaken in Reflective Learning and Practice 2A on the Marketing Project module within the Diploma of Business (Marketing). Ben believed that such a program would enable her to not only meet the Adult Entry requirements but it would also give her the skills and confidence to articulate smoothly into her University studies. He also felt that she might be eligible to apply for the dual award which was offered by the University in conjunction with the Mavis McKinnon Institute.

Outcomes

Fiona then develops an action plan and over the next two years she successfully completes the following modules at the Kookaburra Flats Neighbourhood House and at the Mavis McKinnon Institute:

Core Modules		
VBA 506	Reflective Learning and Practice 1A	70 hours
VBA 507	Reflective Learning and Practice 1B	70 hours
Negotiated Modules		
NCS 008	Presenting Information	20 hours
VBA 509	Marketing Communications	51 hours
VBA 488	Applied Business Computer Applications	51 hours
VBA 485	The Marketing Concept	68 hours
Elective Modules		
VBA 498	Financial Decision Making	50 hours
NCS 005	Dealing with Conflict	20 hours
NCS 009	Negotiation Skills	20 hours

At this stage, Fiona is met the requirements for the qualification Certificate IV in Further Education. She continues to work through her action plan by undertaking the following units towards her Diploma of Education.

Core Modules

VBA 508	Reflective Learning and Practice 2A	60 hours
VBA 509	Reflective Learning and Practice 2B	60 hours

Elective Modules

VBA 494	Microeconomics	51 hours
VBA 493	Business Statistics	51 hours
VBD 200	Business Analysis Methods	51 hours
NCS 015	Presenting Reports	20 hours
FMC 5.1	Manage Work Priorities and professional development	

At this stage Fiona applies for and is given Adult Entry into the Bachelor of Business (Marketing) program at the Jessie Street University of Technology. She successfully gains her degree in the minimum time and is employed by a local branch of a multinational IT enterprise as a marketing executive.

Amin also enrolled in the Diploma of Further Education and looked at ways in which he might fulfil this ambition.

Initial Learning Pathway

From his research into possible courses of study, Amin notes that by completing a Diploma of Applied Science in Medical Laboratory Technology, he would be eligible for entry into the Bachelor of Medical Science offered at the Ormond University of Technology.

Accordingly, he makes an appointment and goes to see a course advisor at the nearby campus of the Caraway Institute of TAFE. He finds that, although the usual course entry is through VTAC or for those already employed within the industry, a small number of places are reserved for special entry. He collects all the necessary information, resulting in an agreed program by which he might prepare himself for entry into the Diploma of Applied Science.

Negotiating the Learning Pathway

After discussion with his learning mentor, Amin goes back to see the course adviser at the Carroway Institute to check whether he is eligible to apply for RPL on the basis of his:

partially completed apprenticeship: his CGEA studies; the core modules within the Diploma of FE program which he is currently undertaking; his part time work in the computing area which included providing training for customers in the use of spreadsheets and other software applications.

He is advised that he is and so he applies for RPL for six modules which form part of the Certificate IV in Laboratory Technology in Biological Sciences:

His RPL application is completely successful, so he now meets with the course advisers from both the TAFE Institute and the Ormond University of Technology to negotiate his learning pathway. Between them they agree that on the modules that will form the negotiated part of Amin's learning pathway and discuss the evidence that should form the basis of his DipFE portfolio

Outcomes

Amin then develops an action plan and finds that he can undertake his desired program in 12 months if he takes VCE Mathematics Level 3 & 4 instead of the specific TAFE modules because of timetable clashes. So in the following years he successfully completes the following program:

Core Modules

VBA 506	Reflective Learning and Practice 1A	70 hours
VBA 507	Reflective Learning and Practice 1B	70 hours

Negotiated Modules

	VCE Mathematics Levels 3& 4	80 hours	
AAA600	Science Industry Orientation	20 hours	
AAA630	Computer Fundamentals	25 hours	RPL

AAA631	Scientific Spreadsheet Applications	25 hours	RPL
NCS015	Presenting Reports	20 hours	RPL
Elective Modules			
AAA642	Statistics and Methods of Sampling	40 hours	
AAA602	Laboratory Operations	40 hours	
AAA620	Principles of Instrumentation	50 hours	

At this stage Amin has met the requirements for the Certificate IV in Further Education and moves across to the Carroway Institute of TAFE to complete his Certificate IV in Laboratory Technology in Biological Sciences and the Diploma of Applied Science in Medical Laboratory Technology. Whilst he is doing this he also continues with the core modules for the Diploma in Further Education (that is Reflective Learning and Planning 2A & 2B) as he feels this will help him develop the study skills which he will need for his further study.

On finishing his TAFE studies, he is accepted into the Bachelor of Medical Laboratory Science at the Ormond University of Technology, with advanced standing so that he enters the second year of the undergraduate program. He passes his course with good grades, obtains a job with a prestigious research laboratory and goes on to post-graduate studies.

WHERE TO FROM HERE?

The Diploma of Education (DipFE) is a fairly new program but it has generated a lot of interest and enrolments. It also promises to be an effective pathway via which adults returning to study can clarify and achieve their educational and vocational aspirations. Of the twenty-two participants in the pilot program, eighteen have been accepted into the tertiary program of their choice, three are continuing their DipFE studies while one has realised she was aiming to high and has transferred to a Certificate II program. The DipFE provides a learner centred program for adults negotiating the often rocky path into and between tertiary institutions. As a staff member from one of the trialing universities said:

> There are many people out there who need an individually tailored pathway. [The Diploma] is so flexible. It is the education of the future - focusing on the individual's needs rather than the [provider]. (Palmieri 2000, p. 4)

The Diploma of Education provides a viable educational pathway for many learners disadvantaged by circumstances, geography, etc.. The role of the learning mentor is the pivotal feature which allows for individual students, pursuing different goals to work collegially to support, encourage and challenge each other. Being a learning mentor is not an easy role but those involved in the pilot program unanimously agreed that it was an extremely rewarding one.

There are a number of other areas where a similar curriculum framework supported by the use of learning mentors would provide a learning pathway between educational institutions. Aboriginal and Torres Straits Islanders and adults with non-English speaking backgrounds are obvious targets. Of greater challenge, but of equally greater importance, would be the tailoring of a program which would help disadvantaged youth cross the divide into work and education.

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Unintegrated training? Exploring links between off- and on-the-job learning

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In recent years there has been increasing interest in the link between classroom and workplace learning. For example, Harris, Willis and Simons (1997) have looked at the concepts of integrated training for apprentices and have raised some questions about the effectiveness of the integration between the formal and workplace learning environments. But what about workplaces where there is no provision for integrated training, where the employer either assumes that institutional training is sufficient preparation, or that new employees will 'pick up' in some way anything else he or she needs to know in order to do the job?

THE STUDY

The research reported here was conducted with two cohorts of students from a private vocational education and training college in Australia, fourteen of whom were students at the College in 1997, and six of whom were 'workers' who had graduated from the course within the previous two years and had moved into employment. The respondents, seventeen female and three male, were from two particular courses, Executive Secretarial Skills, and Hospitality and Tourism, which are at Certificate IV level in the Australian Qualifications Framework introduced in 1995, and are for one year full-time. The college's curriculum for those courses is based on national competency standards and utilises nationally accredited competency-based modules.

The workers were in full- or part-time employment, and were selected in consultation with the co-principals of the college, firstly on the basis of having completed the college course within the previous two years, and thus assumed to be reasonably able to recall their experience of transfer to the workplace of competencies learned in the formal setting, and secondly on being geographically accessible for face-to-face interviews. The students were selected randomly and on the basis of availability at the time of the interviews. With the interviewees' permission, all interviews were recorded and transcribed.

An initial interview, early in the year, established for the researchers the level of understanding by the respondents of such concepts as competencies and transfer of learning. This provided the basis for a second interview undertaken late in the year which explored the students' and graduates' perceptions about the learning strategies they adopted in the classroom and in the workplace respectively, and about the extent to which they perceived classroom learning was transferred to the workplace. Learning strategies were identified using a 'critical incident' approach, and the findings from that part of the study were reported in a paper presented at a conference in December 1999 (Dymock and Gerber, 1999). The focus of this paper is the perceived transfer of learning.

TRANSFER OF LEARNING

Workers

When asked, 'To what extent were you able to apply what you learned in your course to the workplace?', five of the six workers perceived that their college training had generally prepared them for their jobs. For example, W2 said that 'they do cover basically everything you need to enter the workplace but it's not until you are in the workplace that you begin to build on what you have learnt'. This was supported by W:

> ... I pretty much learned everything I needed to learn [at the college], unless you go into specialising and you can't teach every form of specialising in every job so it gave me a good sort of background...

However W3 also found that she could not utilise her hospitality training in the workplace because despite her experience in customer service positions as a casual at a resort for more than a year, when she asked about a permanent position she was made switchboard operator, which she found 'extremely boring'.

Another worker, W4, was disgruntled with her college training, claiming she knew 'nothing' when she went to work in an office:

> I didn't have much practical experience... I don't think [the college] spends enough time on typewriters, on computers, because that is mainly what it is. And it is also a good idea to put people on the front desk but we only did it for an hour out of the whole year and that doesn't give you much of a go at it.

This worker also complained that less time could have been spent at the college on the study of managing a business because 'I came [to the college] thinking I am going to learn to be a receptionist not a manager'. This was in direct contrast to the response of W1. W4 said that what she obtained from her college training were her typing speed, and 'you learn how to dress, you learn how to talk'.

Students

The fourteen students were almost at the end of their one-year courses, and had either undertaken work experience as part of their training or had part-time jobs. Overwhelmingly they perceived their college training as highly relevant to the workplace. S11 said 'You get a background [at the college] of what to do and how to do it', and S12 said: If I didn't do this course I would be up the creek without a paddle.

S2 was quite clear about the perceived usefulness of the course for the workplace:

> ... a lot of things we have done [at the college] during the year I thought were just absolutely stupid and a waste of time, but it ended up they did use them. For example, petty cash reconciliation every day and how they were telling us how we had to write letters in the book before we posted them, and I thought as if anyone would waste their time with that, but they actually did all these things.

Two of the students identified the transfer of learning with tasks they had been set in the workplace: S5 said that she had been 'really lucky' because in her work experience she had been a 'real' secretary for a week; S10, when asked if what she had learned had prepared her for an office, responded: 'Yes, just by the letter typing, answering the phones and just interacting with the public'.

S1 said that she felt she would have been able to transfer the learning if she had been given a chance to, but her work experience comprised 'menial little jobs that nobody else wanted to do'.

NEW LEARNING

Workers

Asked, 'What did you need to learn for the job which you felt you had not learned in the classroom training, and how did you go about learning those things?', the workers generally felt that there was nothing specific that they needed to learn on the job which they had not learned at the college, pointing out however the need to adapt to the needs and expectations of the organisations for which they worked, as W5 explained:

> Once you get there you are fitting in with the office and you are learning how they do things so you have to modify what you have learnt [at the college] to suit the office...

W5 also commented on the need to adapt to the specialised tasks of the office, but added: 'They do sort of get thrown at you, though'. She said that the 'scariest' thing was using the phone because they had not used phones much in their college training and that in her first job the staff seemed to expect that she would know how to use it. But she was always cutting people off and then other staff showed her what to do, and she also watched other people to see how they did it.

W3, the switchboard operator at a resort, had a more organised introduction to using the phone system, with the executive secretary sitting with her and showing her how to do it for two four-hour shifts to 'basically show me what I needed to know, but there are a few things that I have learned as time goes by...'

W6 thought that the college course might have covered a bit more 'face-to-face stuff' such as dealing with clients and telephone manner because 'once you get thrown into the job there, it is not the easiest thing really'. He also felt that working to deadlines was different on the job to in the classroom because 'in a class situation you have an assessment and you may be able to get an extension and lose marks but you can't just lose a mark in the workplace because it is real people and if you are not prepared to get the job done then they are going to lose some money'. He thought therefore that time management was important in his office and that he had 'probably not' learned that at the college.

The graduate who felt that she was not well prepared for the workforce, W4, said that she had learned how to handle pressure, such as when three phones rang at once, being nice to people when they are rude to you ('you just have to bite your tongue'), and to use a 'newfangled' computer package that had been set up for this particular company. Asked whether there had been formal training with the new system, W4 replied:

> No, me and [another employee] just stayed back one night ... We just played around with it and worked it out for ourselves... we are still just figuring out things on it.

However, a senior employee did show W4 the ways the organisation dealt with standard forms on the computer, and the changes she had to make to the standard form for each client. W4 also observed that although 5 pm was the official finishing time, 'no one leaves at 5' because the perception was that 'you have got nothing to do if you leave at 5'.

Students

Twelve of the fourteen students interviewed were able to identify something that they needed to learn on the job which they had not come across in their college training, but the ways in which they learned these new things in the workplace varied considerably.

Two of the students mentioned airport procedures that they had not practised in their course, but which were demonstrated for them at the workplace, and a third was initially anxious when confronted with an 'unfriendly computer' whilst attending to airport passengers. S2 was shown computerised accounting during his work experience, which he had not been trained in, but said that he had not learned much from that because it was only a demonstration and he did not do it himself.

S3 worked in a bar and was told what things to look out for when she was not serving customers, and she also 'watched other people sometimes, but mostly commonsense'. Working in a resort restaurant, S4 said she had learnt at the college how to set up a table for two or four, but was unprepared for the bulk setting up of tables at the resort:

> I was thrown in. It was expected that I knew how to do it and when it wasn't done properly one of the supervisors came in and said, "You haven't done this right, it's not right, this is the way you have to do it', in a gruff voice.

S13 also had a functions supervisor at a resort who was 'intimidating and he didn't like you approaching him', so that S13 tended to take a lot of notice of what the other staff did, and ask them questions about how to do things, rather than approach the supervisor. S13 thought the only 'training' provided at the resort was at an orientation day, which he had not been available to attend. On the other hand, when S5 was asked to archive and shred files at a lawyer's office, a task she had never done before, another girl from the company stayed with her for half a day, showing her what to do, and checking that it was done properly. After that S5 was left alone and was confident of the results.

Several students commented on differences they perceived between the classroom and the workplace. For example, S11 believed that typewriters and some of the computer programs used at the college were obsolete compared to those used in her office. S12 commented:

> In the office you have more people coming in, you have more interruptions, you have things you have to do, you prioritise, whereas [at the college] you are in a set routine, ... so it's good they gave us the work experience.

Originally placed at a resort for a week's work experience in her hospitality course, S14 was subsequently invited to fill the human resources role while the occupant was on leave. She said that they had covered only basic human resource topics at the college, but that she coped with the workplace responsibility because she had covered a lot of the role during her week's work experience, and, before the human resource person went on leave, 'we had a twenty-minute talk, she told me the main things to do and that was that'. During the four weeks, S14 also sought advice from an indirect supervisor, and commented that 'they are really nice people to work with there so they help you out'.

LOCATION FOR LEARNING

Workers

As noted in the responses to the first question, above, the workers felt that the college generally prepared them for the workplace and they then had to adapt to the particular requirements of the offices in which they worked. They were therefore mostly unable to suggest particular elements that were better learned in the workplace. W1 suggested, however, that if she were to do any more training, she would prefer it to be in the workplace because 'it is the way they like it to be done'. She recognised that specialist training, for example in accountancy, would need to be studied outside. W5 also commented that if she did any further training at that stage she expected it would be specific training within her workplace.

W6 commented on one difference he had noted between the classroom and the workplace: if there is something you don't understand, 'in the classroom you usually want to know straight away so you go and ask the teacher; when you are in the workforce you tend to work it out more for yourself', particularly because 'you don't want to be seen as not knowing what you are doing and asking questions every five minutes or so', especially as the other staff are usually occupied with another client.

Students

None of the students favoured a complete workplace learning approach, but several spoke of the need for a 'balance' between the learning in the classroom and on-the-job. A number reiterated the points made in response to the first question above: that the college training provided the basic knowledge to build on, although there were different opinions on whether this should be basic skills training or theory. For example, two of the respondents advocated learning more difficult aspects which took time, such as accounting, and fares and ticketing, at college, while another said that if he had not learned how to carry plates at the training course he would not have been able to do it in the workplace.

Other topics suggested individually for learning on the job included computers and phones 'because you can have a fiddle around and more or less just work it out for yourself', hands-on activities such as stocking shelves, mailing and banking because they were straightforward, and attitudes towards customers.

DISCUSSION

There was a strong perception form five of the six workers of a direct transfer of learning from their college course to the workplace. The concept of 'building on' the initial foundation was a common theme. The eventual placement of a graduate in a position which apparently called on little of her training or talents suggests that some employers give little thought to matching skills to positions, but simply 'fill the vacancy', a situation likely to result in dissatisfaction from the employee and ultimately probably the employer. It is difficult to know how to regard the case of the graduate who felt that she had little to transfer from her college course - there may be other factors at play here which were not brought out by the interview questions.

As with the majority of workers, the students were unanimously positive about the applicability to the workplace of what they had learned in their college courses. The experience of the student who only discovered the relevance of some aspects of the course when she undertook work experience, reiterates the principle advocated by Knowles (1990) among others, that adults need to know why they need to know. Perhaps earlier exposure to workplace practices would assist that process, but that is not always easy to arrange. Similarly, the complaint of the disgruntled worker that the course covered 'irrelevant' areas such as management, raises questions about when in a person's career such topics are best addressed.

It is clear from the students' responses that there was a variety of work experiences to which they were exposed in the week or two they had for that activity: the extent to which they were able to transfer their college learning appears to have been greatly influenced by the degree to which they were given meaningful tasks where they were employed.

In general, the workers did not identify significant 'new' learning they needed to acquire on the job, but generally emphasised the need to adapt what they learned in their courses to the particular requirements of their employers. The extent to which 'structured' training was offered varied considerably, with most workers seemingly left to observe or ask or experiment in order to learn particular skills or responses in the office. Workers also commented on other factors where they observed there were differences between the classroom and work environment, such as the different pressures on working to deadlines and therefore the need for good time management in the workplace, and the need to observe unwritten office expectations, for example in relation to finishing times.

A number of the students also observed the differences in office routines compared with the college routines they had been used to, for example the number of interruptions to their office work. Most students identified an occasion where they had to undertake new learning on the job, sometimes because the employer had expectations that the student would be able to do it without further instruction. When these expectations were not met, the employer (or at least the immediate supervisor) did not always respond well in terms of supporting the employee, sometimes because of a supervisor's attitude, and sometimes apparently by default.

The result was that much of the students' intentional learning in the workplace was what Marsick and Watkins (1990, 12) called 'informal learning', which they defined as 'not typically classroom-based or highly structured, and control of learning rests in the hands of the learners'. The learning undertaken by one student when she was unexpectedly invited to fill the human resources position for a month appears to have been mostly informal learning, but with some training and a supportive colleagues. The student's apparent ability to rise to the occasion raises research issues in relation to the extent to which this was an outcome of her college preparation compared with the influence of her own abilities and self-confidence.

In general, the workers felt that their college training prepared them for the workplace, and that any further training was seen as being strongly for specific in-house purposes. It seemed also that the workers accepted responsibility for their own learning in the workplace.

The students had a variety of views about where particular training was best placed, some believing that theory or harder-to-grasp topics should be covered at the college, and more straightforward work-related practices taught on the job, others suggesting that basic skills were best taught at the college and then developed in the workplace to suit particular requirements.

The study findings suggest that employers are not offering sufficient support to their new employees in terms of preparing them for particular workplaces or of helping them develop. One of the limitations of this research, however, is that it does not include the employers' perceptions, and they may have quite different views about the extent of their responsibility for training, particularly for employees or work-experience students who are undertaking or who have completed a formal course of study. It would also be useful to seek the college teachers' responses to the students' and employees' views.

Given the range of responses uncovered by the research, perhaps there should be some mechanism by which the graduates of this and similar vocational education and training courses and employers can provide feedback to the educational institutions. Whilst there are competencies to which the institutions teach, the findings here raise questions about the extent to which employers are familiar with those competencies, as well as what limitations those competencies might have in relation to what might be described as an organisation's culture.

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Leadership in Vocational Education and Training: developing social capital through partnerships

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The author would like to acknowledge the work of researchers from the entire CRLRA research team in the conduct of the research discussed in this chapter.

> One of the key features [about Vocational Education and Training] was the central place of new networks of influence and connection. The other was the importance of...leadership capable of pulling together the interests, resources and commitment in a region or community to forge a sense of common purpose and direction for change.... [W]hat matters most in the learning revolution is the work that goes on at a local level.
>
> Dickie and Stewart Weeks (1999, p. 5), *ANTA National Marketing Strategy for Skills and Lifelong Learning*.

MANAGING CHANGE THROUGH VET LEADERSHIP

The first year of a four year longitudinal research project, *Managing change through VET: The role of VET in regional Australia* (CRLRA 2000), sought to document the impact of vocational education and training on the social and economic wellbeing across seven of Australia's regions. The aspect of the study reported in this paper is the dynamics surrounding leadership and partnerships across the community collaborators in VET. These collaborators are VET providers, clients, systems, organisations, communities and institutions. The dynamics produce social capital, and social capital builds a strong community with distinctive VET demand and supply characteristics. In turn, a strong community with appropriate VET skills and knowledge provides the platform for a strong local economy.

The paper discusses how VET contributes to strong communities and socio-economic wellbeing in a number of ways, yet there is evidence that it can contribute much more effectively. Good quality partnerships developed through a new style of leadership called 'enabling leadership' are shown to enhance both the quality and quantity of VET outcomes. The inherent features of these partnerships are processes that are collaboratively and locally designed to meet local needs (Hugonnier 1999; Kenyon 1999). These local 'endogenous development' processes arise in the context of the local/global tension. Strong social cohesion, trust and social capital underpin these successful VET outcomes. Vocational education, training and learning is a tool which regional citizens use in diverse situations for their diverse lifelong learning purposes.

METROCENTRISM AND THE REGIONS?

Differences and inequalities between the 'city and the bush' are historical and well documented in Australia (e.g. Butler & Lawrence 1996). In summarising the statistical literature about demographic and social changes in regional Australia, Wahlquist (1999, 1) concludes:

> Rural and regional Australians are, by every significant measure, disadvantaged. Country people die younger, and receive less medical attention. They find it harder to access medical specialists, dentists, physiotherapists, psychologists, even pharmacists. They have lower levels of education and higher unemployment. They have more accidents, suffer worse health, and rural youth has a shockingly high suicide rate.

There are two key indicators of social disadvantage noted by in Australia today: skills and location (Latham 2000, 17). As a key principle of the Regional Australia Summit (1999, 4) Education, Training and Learning Theme, states:

> Education and lifelong learning provides the capacity to manage change.

Managing change, then, is the principal process involved in regional and community development, and it is the function for which VET is most needed. VET's role as a resource to those processes is the next issue to be examined.

VET AND PARTNERSHIPS

A range of community, government and private VET organisations have been encouraged to change the way they do business by forming configurations and consortiums of partners for various purposes: to collaborate, to multiply inter-organisational networks or partnerships and take on a qualitatively different form in designing VET for specific purposes and regions. One reason for these changes in configuration, as suggest in relation to university and TAFE collaboration, is that:

> ... smaller, decentralised structures based on strategies of cooperation and horizontal relationships adjust more rapidly to changing technologies and market conditions, develop new products and services in a shorter time period and provide more creative solutions in the process. This form offers great competitive advantage in a global economy. (Sommerlad et al 1998, p. 17)

It is these 'structures' which are based on 'horizontal relationships' (that is, trust-based networks focused on common and shared needs and values) that this research sets out to document. This is social capital - the shared values, networks and trust (Falk & Kilpatrick 2000; Putnam 1993) which are identified in the research literature as enhancing economic outcomes.

The nature of the dynamics between various VET providers and vocational learning needs requires answering questions not only about the 'what', but also the 'how' and the 'why'. In this paper, answering these questions requires documenting and analysing the way people work with the circumstances they have at the local level, then facilitate and trigger the processes, systems and structures that produce VET outcomes. Capacities such as these are often called 'networking' and 'leadership', which are indeed recognised in the research literature as essential ingredients in the production of resilient and sustainable social and economic outcomes.

VET, NETWORKS AND LEADERSHIP FOR CHANGE

Dickie and Stewart-Weeks (1999) find the importance of a '...focus on networks and leadership' (p. 6-7). ANTA (2000) reports the significance of 'local leadership' and 'networks' (p. 25) in enhancing VET outcomes across Australia. This convergence in the research and policy literature is a significant change of direction for VET in Australia, and is supported by comprehensive community-based research into community leadership (Falk & Harrison 1998; Falk & Mulford forthcoming) that shows the different types and purposes of a situated-style of leadership that differs from tradition, top-down leadership forms. Peirce and Johnson (1997) highlight some of the main requirements for leadership under the conditions required in community leadership in the new millennium:

> What we need...is something new - networks of responsibility drawn from all segments, coming together to create a wholeness that incorporates diversity. The participants are at home with change and exhibit a measure of shared values, a sense of mutual obligation and trust. Above all, they have a sense of responsibility for the future of the whole city and region. (p. iv)

Sometimes called 'situated leadership' (Falk 1999) because of its situation-specific characteristics, enabling leadership (Falk & Mulford forthcoming) includes relationship building and collaborative problem-solving, community capacity audits and situational analyses. In short, it involves asset mapping of social, human and economic resources (Kretzmann & McKnight 1993), to establish the developmental needs of the particular community and region. With the results of the situational analysis, the enabling leadership structure for that situation can be designed and relevant, local solutions can be collaboratively established. Enabling leadership as situated network building across traditional barriers for specific situations and purposes, is suspected to be different from traditional top-down notions of leadership, but this has only recently been explored through research. This paper begins the process of expanding and articulating work cited above, such as Falk and Mulford (forthcoming), whose chief findings thus far concerning enabling leadership are now summarised.

ENABLING LEADERSHIP

The following are some of the key conditions that shape the nature of the interactive process fostering positive learning of knowledge and about identities. These contextual conditions contribute to enhanced networks, relationships, collective action and, therefore, leadership:

- *Building internal networks*: Are the relevant knowledge of skills, knowledge and values present for the purpose in hand?
- *Building links between internal and external networks*: How well are the links between the internal and external networks in the community built and maintained?
- *Building historicity*: How effective is the building of shared experiences (including norms, values and attitudes) and understandings of personal, family, community and broader social history?
- *Building shared visions*: How systematic, inclusive, and inclusive of knowledge and identity resources (including norms, values and attitudes) is the reconciliation of past shared experiences with the desired future scenario/s?
- *Building shared communication*: How explicit and systematic are the communicative practices, about physical sites, rules and procedures?
- *Building each other's self confidence and identity shifts*: How explicit and systematic are the opportunities where these interactions occur?

The role of leaders under these contextual circumstances is basically one of developing trust. For example, the building of networks relies for its success on building trust between the network members, a clear leadership role. Likewise, building trust between people as they share communication is fundamental to successful outcomes. It can also be seen that one outcome of the above indicators of sound process will be enhanced levels of generalised trust and commitment in all the networks of that community-of-common-purpose. In other words, trust is apparent at both specific and generalised levels. Building trust must clearly be a goal of leaders of the new millennium.

The precondition for 'good leadership' in the new times heralded by the above is that the leadership is not approached from a predetermined 'this is the right way to do the job' stance: the action is situated in a particular location, with particular needs and particular planned outcomes in the form of *enabling* others. The situation dictates the needs, the planning and the outcomes. The situation determines the type and extent of enabling leadership that is involved. The characteristics of an enabling leader in new times include:

- relationship-building across community sectors (genders, classes, ethnicities, ages and so on) to establish common interests and activities for furthering the community's specific future and goals
- relationships develop from interactions which need qualities of historicity, externality, reciprocity, trust, shared norms/values
- identifying relevant knowledge and identity resources for particular purposes taking account of need for plentiful interactions
- bringing people together with resources to plan possible futures
- planning opportunities for future events, interactions small, large, across community to facilitate the short and long term goals of the futures agenda
- ensuring the facilitation of networking across groups and sectors throughout all processes
- celebrating and documenting successes, recognising and moving on from failures.

In the section that follows, the methodology for the overall project, from which the data reported here is drawn, will be outlined.

PROJECT METHODOLOGY

The main study (CRLRA 2000) sought to provide the greatest possible amount of information in a wide range of areas where vocational education, training and learning occurs, across an initial 7 regions. The theory-building research design can be described broadly as a multi-site, multi-method approach (e.g. Maxwell 1996).

The interviewee selection process in those 7 regions was informed by the five objectives in the *National Strategy for Vocational Education and Training 1998-2003* (ANTA 1998). The objectives are equipping Australians for the world of work; enhancing mobility in the labour market; achieving equitable outcomes in vocational education and training; increasing investment in training; and maximising the value of public vocational education and training. These objectives were used to identify specific issues and groups as foci for the different sites selected, and a purpose-made questionnaire as well as targeted interview schedules were developed.

The purposive sampling strategy (Patton 1990) deliberately sought respondents from four groups in each of the seven regions: First, there were organisations concerned with formal VET provision. Second, there were employers. Third were representatives of community organisations, and fourth were learners or community members. The two main sources of data were interview data and questionnaire data. For each of the four interviewee groups, questions were based around the same four interest areas. Information and perceptions were sought about:

- changes in the community and their impact on individuals and organisations;
- interactions related to vocational education and training among individuals, enterprises, VET providers and community organisations;
- recent vocational education and training experiences focussing on their contributions to social and economic wellbeing;
- people's perceptions about the future vocational education and training needs.

Questionnaires were completed by most interviewees from the 28 sites. In total, 399 questionnaires were completed for scanning purposes. Data were analysed using a combination of manual thematic analyses, NUD*IST, and some detailed ethnomethodological analyses using a range of techniques (Miles & Huberman 1984). Standard statistical procedures were applied to the questionnaire data as appropriate, though these data are not the subject of the report in this paper.

The data reported in this paper tests the assumption that local (endogenous) planning and leadership enhance socio-economic VET outcomes for regions, and that these outcomes are in fact more sustainable. Two examples of the data showing this endogenous planning will be shown. They illustrate various features of the trust and social cohesion that are found to be important for enabling leadership, especially across sectors.

The research questions from the main study concerning partnership and leadership are:

- What are the different configurations of vocational education and training in regional communities?
- What are effective models of collaboration between communities and their VET providers?

It is stressed here that the following section draws on only a small section of the data as illustrative documentation of the research findings. The paper continues now with a sample of illustrative data, then continues with a section outlining the study's results for partnership and leadership issues. Readers are directed to the main report, available on the web (http://www.CRLRA.utas.edu.au), in photocopy form, or in published report form from ANTA or CRLRA directly.

ENABLING VET LEADERSHIP: TWO CASES

This section presents two cases of many in the data. Each case shows how the partnerships and leadership differ according to the local needs and situation.

Case 1: TAFE as a VET enabler

Collaboration in this case brings together four participating partners, all benefiting in a multitude of ways. The case beginnings stem from a number of felt, as well as expressed needs. The members of an Indigenous retirement village express a felt need to the City Council for a place in which they can gather and socialise. The Council is unable to respond due to financial constraints. TAFE offers to offset some of the associated costs by supplying labour to the project and in doing so meeting the need for a practical work experience component of some of its Indigenous trainees.

Each of the participants is unable to accomplish their goals without the ensuing interaction between each of the partners. Mutual benefit is accomplished in an efficient manner. Collaboration achieves that which in isolation is unachievable and is accompanied by a number of unintended social outcomes of great importance to each of the collaborators.

A representative of the local city council describes the way the case worked in practice:

Case 1: TAFE as enabler

When the [retirement] village was first constructed it was based on a philosophical principle that it wanted to promote independence of living amongst older people. Even though they were living in supported accommodation they would be encouraged to live as independently as possible and in fact live in a town-like or home-like atmosphere. In practice what we found was that the needs level of the people in our hostel increased, the support needs increased and also that the people there themselves wanted to gather together rather than being necessarily part of the broader community because of the difficulty of moving around and so on. They were happy to work together and to play together if you like, as a community, in itself, and they had been asking council for some time to construct a recreation facility for them where they could meet and conduct their various activities. Well, at that stage council couldn't afford to do that because we had a strong commitment to other works at the village. However the TAFE approached council with an offer to provide labour to construct a recreation room if council would provide the funds for the purchase of materials and other things. Council accepted that as a good idea and went ahead, and the building was actually constructed and it's now in constant use by the people in the village.

Now the outcomes from that were, I guess it's a win/win for everybody. First of all, the people in the village got themselves a recreation room that they really love and that they use a lot, and they're very proud of it. Secondly, the people at TAFE got an opportunity to get real work experience building a real building rather than just a mock up on the TAFE site, and particularly that was for younger Aboriginal people who were participating in the building program. They were the - it was basically an Aboriginal training program, (Thirdly) I guess it gave them an insight into the problems of older people in being on the job there and seeing the needs of older people, but also in reverse [it] showed a more positive side of young people to older people. You know ... older people are fairly critical of younger people generally and think that they are just bludgers and threats to their existence and I think that, you know, one of the positives was that there was a bit more understanding and appreciation from the residents in the village to the TAFE students who were there doing the work. So, yeah, it was a two-way thing. And (Fourthly) I guess council was in-between - [it] got the benefit of a building that is now an asset to its retirement village so council thought it was a pretty good project. You know we were very pleased with the outcomes of the project.

TAFE were extremely pleased with the outcomes too, first of all because if they hadn't had a project it's most likely that the course would not have run, they basically have to have a project that they can work on and work towards and they were looking for one. What they can provide is the labour, but obviously the other participant has to provide the materials and there is a fair bit of money involved in that, so, it's not easy for TAFE to get another joint venturer if you like in these projects, so they were very happy: it kept a course going that otherwise would have been lost to [The District] and once courses are lost at TAFE and other things, you know, they don't come back. So that, that was part of the drive to do it too, that we didn't want to see that building trade course disappear, or it was pre-apprenticeship training course disappear. And ... as I mentioned before, we were looking at other potential joint venture projects with TAFE as well. We haven't actually entered into any with them, but TAFE has worked with other groups like the Department of Housing to do works on their estates and so on, so TAFE's involvement with the community has continued after that particular project. Maybe that one gave them a bit of a high profile that they can hold up and say, 'look we can do it'.

Outcomes of Case 1

- There is external networking (inter-organisational practices) evident on the part of all groups, and to external regional and state structures, initiated by strong local leadership
- Changed attitudes are evident, and to personal identities so individuals see themselves as being able to develop in different roles - the capacity and willingness to act in new and different ways. That is, changed attitudes and identity formation promote risk-taking and transfer of learning through networks both within and linking to outside the communities
- Raised levels of awareness and caring for other members of community
- Learning took place at different levels - personal, group and organisational
- Individuals acquired skills
- Lifestyle of retirees improved
- Cost sharing and reduced capital outlay claimed
- Resources associated with drawing on future and past experience evident (dimensions of historicity and futuricity)
- Understanding and trust is improved between Indigenous youth and the older Indigenous generation living at the centre

- Financial and social benefits from the TAFE course being maintained in the community
- Collaboration secured TAFE course for future
- Real life skills building project for students

In other words, this model demonstrates elements of three different groups of needs being met: Individual, community and region.

Case 2: Community as VET enabler

Collaboration is not simple, nor is it uniform in its influence. Collaboration occurs for specific purposes in specific places at specific times, and its very nature means that some stakeholders will be included and other groups may not. The trick of the leaders or initiators of the collaboration is to know who should be involved in the case in hand. However, knowing who and actually achieving the involvement of the desired parties are often two different matters, for reasons that may be beyond the control of the local planning group. The following scenario illustrates some of the multi-dimensionality of partnerships and collaboration.

Case 2: Community as enabler

The Lakeside Committee was formed to try to beautify and reclaim the banks of the lake on which the town is located. The group formed and then needed to affiliate with a registered body to be eligible for Government funding. They became a group under Landcare and received $45,000 over three years. While Landcare is largely rural based, the Lakeside group draws in people from a wide range of organisations, including local orchardists, the Development Association and the local Indigenous groups.

A proper project plan was drawn up and the plan is to get rid of the exotic trees that have grown up along the bank and to replace them with native trees. Part of the project involves collecting seeds to use in the revegetation programme. There is a core group of five people in the project, but it is often possible to have up to thirty volunteers come to help on planting days.

Generally, it is perceived that the town gets together to work on important projects. The group's major project is building a bush house at the High School to raise seedlings to be planted out. This could be used by the High School as well. The local Convent school and the local High School will plant trees. Volunteer groups will also plant.

A group of eight trainees under the management of Greencorp (a training company) has used the Lakeside project as their base for training. They have been working there for six months and are about to finish. They have been involved in all kinds of training on the site. The Project provides the materials and the trainees provide the labour. They have cut down exotics, replanted the shores of the lake, put in walking tracks, and put in a bridge.

Local businesses are asked directly if they will help. They have been very generous. The cement works has helped; local orchardists have helped; graziers; ACME Machinery; the welding works donated the steel frame; and a local builder was the works overseer. There were also outside links involved with the project. For example, the Department of Natural Resources was involved with the grant application, Greening Australia and Greencorp have also been involved in different aspects.

One section of the lake shore which is a traditional Indigenous area has been allocated to the local Indigenous group to deal with in their own way. They intend to plant bush-tucker trees and to put in a dance area. The Indigenous dancing group will be involved as well.

Across the district, there are a multitude of identified training opportunities which remain unmet.

However, the local TAFE branch is threatened with closure because the only courses it offers - standard construction and engineering courses - are not viable. The community wanted the TAFE to run a computer course, but the TAFE didn't have the resources, so the course was run from a school at a regional centre an hour's drive away. The decision on which courses to run is beyond the control of the local management, and in the hands of the manager at the main campus about an hour and a half's drive away in the regional centre. The demise of the TAFE would result in the loss of about three jobs to the town, a physical asset of considerable value, and an enormous potential asset to the community and region.

A local committee led by the Mayor is now seeking ways to secure the funds to ensure the TAFE stays in town and provides a more community responsive community college offering.

Outcomes of Case 2

Strongly evident in the piece are the points already confirmed, especially the interplay of individual, community and regional dynamics. As well:

- The role of adequate resourcing is crucial to achieving sound outcomes
- The impact of external (in this case regional centre) decisions on more peripheral wellbeing
- The impact of the initiative and different forms and styles of leadership are integral to the success of the ongoing collaborative projects
- The partnerships open up and identify coherent and locally relevant employment and training opportunities
- The case of the TAFE branch provides a different view of collaboration, and demonstrates the contribution of the TAFE - its three jobs, the value-adding that the maintenance and rates of the campus pass on to the local district and the contribution to the community of the employees outside their work role
- It also illustrates some of the constraints involved in achieving partnerships when a 'head office' is removed from the community involved by a long drive and therefore does not fully appreciate local issues.

There are bound to be local opponents to the above initiatives, and these would lend another view of the situation, although it is to be expected that a collaborative outcome, while aiming for a shared purpose, may not carry all in its path.

RESULTS FOR LEADERSHIP AND PARTNERSHIPS

The results of this paper show that there are aspects related to partnerships driven by effective leadership in the local organisation of VET that directly impact on its effectiveness. These aspects are not only to do with the physical resources available to the participants (such as transport and childcare). Nor are they solely related to the individual's skill base, confidence or motivation, even though these issues have been shown to be vital in VET's effectiveness in their own right.

Each successful partnership within a configuration can be described according to four primary variables:

- **Purpose**: The purpose of the partnership is a stabilising influence on the project as well as needing to vary with emerging vision and needs. Well-defined and well-understood purpose is the linchpin of the development of strong networks among the partners, and the resulting trust facilitates VET outcomes at individual, community and regional levels.

- **Partnership members**: The membership must be of the people who work to get things done. Leaders emerge for different stages of the partnership development. Good leadership is characterised by participation, relevance and flexibility. Partnerships that do not work appear to be those whose membership is 'by sector' rather than 'by operant'-the person who actually exerts the force to get things done.

- **Intensity**: The number of meetings per week, month or year is a crucial factor in the viability and success of partnerships. Early in a cycle, more frequent meetings are important until shared vision and trust are built, and real and expressed needs are understood and planned for. This depends on the strengths of the staff 'on the ground'-their skills as individuals and team workers. The intensity of meetings will taper as trust builds, until meetings are held as required.

- **Duration**: The duration of the project partnership will vary according to purpose, relevance of needs met, adjustment to emerging needs, and the development of the partnership to meet changing community and regional needs. In many instances, the partnership re-configures (has slightly or radically different operant members) for a different purpose, although this is only possible because of the continuity of staff and vision established in the earlier partnership.

These four variables are then defined according to five dimensions (see Table below):

- on-ground personnel continuity and leadership
- vision coherence and continuity
- relevance of activating needs
- relationship among partners
- mix of individual, community and regional focus.

Table: Elements of effective partnerships

	On-ground personnel continuity & leadership	Vision coherence & continuity	Relevance of activating needs	Relationship among partners	Mix of individual, community & regional focus
Purpose	Continuity of relevant personnel is essential for quality and sustainable outcomes. Purpose determines staffing needs, but changing purpose (oiled by trust) may need changing personnel	Vision will change over time but must retain aspects of continuity and coherence according to evolving purposes	Externally imposed purposes must intersect with participants' real and expressed needs for successful impacts. Reciprocally, if these needs are the starting point, then emerging purposes and wider needs may grow	Shared understanding of purpose will develop trust and facilitate action	The project purpose will serve multiple ends at different stages
Partnership members	Continuity of staff intersects with the need to have those staff as the ones who get things done. Leadership is the issue	Shared vision facilitates the work of those who get things done in working as a team	Relevance of activating needs will change and so affect the composition of staffing needs	Trust among partners continuously confirms the status of those who get things done	Those who get things done will do so at these different levels of impacts; this mix will help determine staffing requirements and continuity
Intensity	Intensity of interaction between partners is directly affected by continuity of on-ground personnel	Intensity of partnership is affected and streamlined by coherence of vision with resourcing implications	More interaction has to occur in times of disjuncture where needs are not being met, putting strains on resources and trust	Trust between partners reduces the intensity of interactions so facilitating outcomes and minimising resourcing requirements	Varied individual, community and regional impacts are likely to demand a more intense meeting schedule for partners
Duration	Personnel continuity directly impacts on (a) the project sustainability over time, and (b) the relevance of project duration according to purpose	Evolving and relevant visions are strategically linked to project duration	Relevance of activating needs is a key factor in determining real project duration	Trust oils the flexibility of project duration, avoiding needless continuance and resources of projects, facilitating the reformation of partners for new or revitalised purposes	Real impact on regional level builds over time, along with staff and vision continuity and coherence

The main issue to consider is not the configuration of all the VET players and stakeholders at any one site, but the partnerships within the configuration. The partnerships drive the effectiveness of VET outcomes, where effectiveness includes the variety, depth, time span and availability of provision.

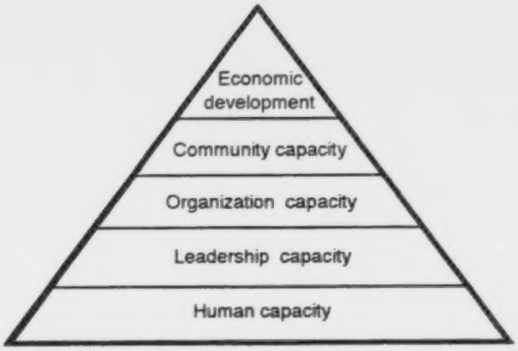
WHAT ARE EFFECTIVE PARTNERSHIPS AND THEIR RELATION TO LEADERSHIP?

The features of effective VET partnerships are:

- Successful partnerships have employed a community-based, bottom-up planning process which is broadly collaborative.
- Successful partnerships depend on the relevance of the vocational learning that arises from the planning processes in terms of filling the felt and expressed needs of the participants.
- Successful partnerships begin and are carried into practice through leadership of various kinds.
- While collaborative community-based planning and development processes are crucial, these depend on government to resource programs *and their development processes* adequately.
- Continuity of relationships over a period of time (historicity) leads to more positive VET outcomes through the consistency of availability and the consequent building of trust.
- Collaboration at a rural level reduces some barriers to participation.
- Historicity (continuity of relationships) between local partners (community, schools, TAFEs) promotes a self-checking or peer accountability, or 'horizontal accountability'.
- One form of provision of VET, or one approach, or one set of courses, or one teaching method, does not work across the board. This is sometimes described as 'one size does not fit all'.

Allen (1999, 9) describes the five levels of economic development of which VET is such an integral and embedded feature. Given the inescapable fact that the sole purpose and *raison d'etre* for vocational education and training is to enhance economic and social wellbeing through a cycle of individual knowledge, skills and identity development, it is significant that the analyses in this and preceding chapters support Allen's contention that levels of capacity must precede strong economic outcomes. Allen's model, with minor amendments in the Figure below, illustrates how economic development, is dependent on the levels of capacity at the foundation of the pyramid:

Figure: The five levels of economic development



Amended from the original diagram by Allen, J. 1999, *The Nebraska model*
Keynote address to Regional Australia Summit, Parliament House, Canberra, 27-29 October, p. 9.

This paper has presented a section of data that supports a model of partnerships and leadership driven by bottom-up, community-owned planning processes. This appears to ensure sustainable VET outcomes because of VET's resulting relevance in meeting real and expressed needs, in building community capacity, and, as mentioned, in contributing to the likelihood of sustainability. Purposefulness, leadership, vision, and continuity of staff and provision are vital in securing positive and sustainable VET outcomes. None of these is possible without a shift in focus from funding generic VET outcomes to resourcing the building of strategic processes and capacity of a collaborative and inclusive kind.

Key barriers to effective collaboration and partnerships include a lack of social cohesion and trust. Partnerships that successfully blend strong community-based goodwill with external networks and resources will achieve the most positive benefits. This results in heightened wellbeing at three levels: individual, community and regional. In very general terms, and from the broader study, there are reports in the data that VET has a positive impact on the social and economic wellbeing of regional Australia. This impact is made through the enabling effect on the achievement of outcomes that are needed by regional Australians, and that directly affect their lives.

In general, it was found that "...social cohesion, trust and social capital underpinned all successful VET outcomes" (CRLRA 2000, 129). Specific findings from the main study relating to partnerships and leadership include:

1. Vocational education and training (VET) is an enabler for rapid change in regional Australia. It does this by facilitating:
   - Relevance and purposefulness
   - Effective partnerships
   - Trust
   - Leadership
   - Quality and quantity of infrastructure
   - Perceptions of VET as 'learning' rather than education and training
2. VET is most effective when in accord with the principle of 'Integrity of Continuity':
   - Continuity of personnel, resources and place
   - Purposefulness
   - Inclusive planning

- Organisational and community history and precedents
- Vision for future of vocational education and training in the community

3 Integrity of continuity is achieved through collaborative local, community-based and inclusive planning for VET that meets the needs of:
  - Individuals
  - Community
  - Region

4. VET's impact on social and economic wellbeing is achieved through building capacities consisting of:
  - Skills
  - Confidence
  - Networks
  - Job readiness

5 Developing quality partnerships in vocational education and training involves bonding communities together as well as connecting them to external agencies and information.

Partnerships that successfully blend strong community-based goodwill with external networks and resources achieve the most positive benefits. There is evidence that the benefits translate into heightened social and economic wellbeing at three levels: individual, community and regional. In order to confirm and expand the nature and extent of these benefits, this third aspect should be examined in more detail in the ongoing study. Key barriers to effective collaboration and partnerships include a lack of social cohesion and trust.

IMPLICATIONS AND CONCLUSIONS

The most significant implication for practice lies in the fact that VET is most effective when local planning and development of VET responses are achieved in collaborative partnerships. The direct implication is that regional audits and capacity building, using an endogenous development design, must be implemented (see Guenther et al 2000, for an example). Once this is achieved, the individual, community and regional VET needs can be fulfilled using the national frameworks and structures as the imprimatur. For practice, this means linking more strongly with local groups and organisations, identifying an enabling leader from the community (who may be from a provider but must have local trust) not only industry but the whole community. It is not enough in itself to cater for industry's needs, since the outcomes, while important, need to be locked into the (as near as possible) whole community for support, resource management and sustainability.

It is stressed that strong social cohesion, trust and social capital underpinned all successful VET outcomes documented in this study. In all cases where these factors had been undermined or were lacking in some way, the contribution of VET to the wellbeing of those living in regional Australia was not as clear as in cases where these factors were strongly in evidence. The study carries with it the force of logic that portrays vocational education, training and learning as a tool which regional citizens could use more effectively in diverse situations, for their diverse lifelong learning purposes.

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Outcomes for apprentices and trainees in Australian small enterprises

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INTRODUCTION

This paper presents an overview of some important issues relating to the Australian apprentice and traineeship system. It also examines research that is currently being undertaken to provide a more comprehensive understanding of employment-based training. The paper describes the research objectives, research methodology and some preliminary results from a study of new apprentice training in Australian small enterprises.

The principal objectives of this paper are:

- to examine the objectives of the apprenticeship and traineeship system as they relate to Australian small enterprises;
- to examine the effects small enterprises have had on the apprenticeship and traineeship system; and
- to present methods suitable for deriving results from analyses of available apprentice and trainee data.

This paper outlines the approach that will be taken to research the outcomes for apprentices and trainees in Australian small enterprises.

THE ISSUES

Apprenticeships and traineeships

The apprenticeship and traineeship system was designed 'to improve the effectiveness of skill formation in Australia and to improve the employment prospects for young people' (Portfolio Budget Statements 1999 - 2000 Employment Training and Youth Affairs Portfolio, Budget Related Paper No.1.5). A report into the quality of the Queensland employment-based training system suggested employment-based training has come to serve multiple objectives including:

> ...initial training for young people; an employment program; a training and skill recognition scheme for existing workers; and in many cases a de facto source of wages subsidies to firms (Schofield, 1999, p.iv).

The objectives of Queensland employment-based training suggested by Schofield (1999) serve to highlight the difference between the objectives of the system as they relate to the individual and the enterprise.

Apprenticeships and traineeships are now available in a wide range of occupations and industries. The potential for employment-based training has been expanded well beyond the traditional realms of the trades. In 1999 there were approximately 100 vocations in which an apprenticeship or traineeship could be undertaken.

Analysis of data from the national Contracts-of-Training database reveals that between 1996 and 1999 there were more than 30 additional occupations in which apprenticeships and traineeships were undertaken. In addition to the expansion of occupational and vocational coverage, there has also been a well-documented expansion in the numbers of people undertaking apprenticeships and traineeships since the mid 1990s. NCVER (1999, p.11) found between 1995 and 1998 there was 'generally a very strong growth' in numbers of apprentices and trainees. NCVER reported that in 1998 there were over 200 000 people undertaking a contract-of-training.

Research

> Despite the continuing problem of shortages of skilled workers in most western countries, very little is known about the key determinants of apprentice intake (Merrilees, 1983, p.1).

Analysis of apprentice and trainee data collected by the NCVER (1999) found that in 1998 private sector employers and group training companies were responsible for the majority of Australian apprentices and trainee commencements. These two employer types accounted for 92.6 per cent of total apprentice and trainee commencements. Private sector commencements in 1998 were almost 103 000 while commencements with group training companies were over 21 000. Due to the dominance of private sector employers in the employment of apprentices and trainees, it is important that research, focussing on these enterprises, be conducted to provide a better understanding of the characteristics of firms that employ apprentices and trainees.

THE GROWTH OF SMALL ENTERPRISES AND EMPLOYMENT OPPORTUNITIES

To classify the size of the enterprise a statistical definition of small, medium and large enterprises must be applied. It was originally intended that this project would consider both small and medium-size enterprises (SMEs). However, the terms 'small-enterprise' and 'small and medium-sized enterprises' are both elusive concepts. Depending on the institutional or historical context major criteria for defining the size of enterprises include, legal status, ownership status, the distinction between the operation of an enterprise at a craft or industrial level, or the industry in which a firm operates. Confusion over the definition is sometimes compounded by the introduction of separate establishments or workplaces of the same enterprise. In the context of economic policy, the concept of small enterprises usually refers to the size of the legal entity. Therefore, the focus of this research will be on the employment size of the enterprise, not the workplace.

The Australian Bureau of Statistics (ABS), (ABS 1998) defines small enterprises as those which employ less than 20 people. This definition also includes enterprises regarded as micro businesses, those employing less than five people. Medium-sized enterprises however are considerably larger and are defined as those enterprises employing more than 20 but less than 200 people.

In a study of the structure of Australian business, the Department of Employment Workplace Relations and Small Business (1999) found that approximately one million enterprises, 95 per cent, of the 1 051 900 enterprises in Australia were private-sector 'small enterprises'. These figures for small enterprises were calculated using the ABS definition of those enterprises employing less than 20 employees. The focus of this research will be enterprises employing less than 20 people.

The emergence of the small enterprise

In the early 1980s the concept of small enterprises providing the key to economic regeneration and employment provision and employment creation may have appeared incongruous. Large-scale units of production and employment organised into vertically integrated multi-national corporations were the dominant model used to promote economic and social development.

The Organisation for Economic Cooperation and Development (OECD) noted as early as 1985 that there was a tendency towards the concentration of workers in small enterprises in several of its member states, even having accounted for shifts in industrial structure and sectoral composition. The OECD also found that 'small firms have been particularly important in net job growth over the past 10 or 15 years' (OECD, 1985, p.80).

Changes to the size and structure of employment units have the potential of substantial implications for labour standards, the nature and quality of work, and terms of employment.

Birch (1979) focussed the attention of researchers to the employment roles being played by small firms when he claimed that small enterprises created a disproportionate share of new jobs in the United States.

The Department of Employment, Workplace Relations and Small Business (1999) report that in 1996-97 there were more than one million enterprises in operation in Australia. Private small-enterprise employment accounted for 42 per cent, while private medium and large businesses employment accounted for 40 per cent.

The ABS (1998) in an analysis of contributions to employment generation found that in 1996-97 small enterprises contributed 508 000 positions, or 53 per cent of total job generation and 265 000 positions or 50 per cent of total job destruction. A Productivity Commission report (Small business employment) also found that between 1983-84 and 1994-95 Australian firms with less than 20 employees accounted for 53 per cent of new employment (Productivity Commission, 1996). Whether this employment creation was because of the expansion of opportunities in small enterprises or downsizing and category-shifting of medium and large enterprises remains open for debate.

The Productivity Commission (1996) identifies several factors that have influenced the expansion of employment in small enterprises including:

- the contraction in the share of public employment;
- increases in the sectoral employment share of services; and
- reduction in the average manufacturing firm size.

In a related study examining the changing nature of work and its implications for VET in Australia it was reported:

> The scale [size] of the enterprise...in which employment is found has changed...Self employment grew by 255 000 people between 1986 and 1993; the number of employees working for firms employing fewer than 20 people increased from 1 271 000 to 1 509 000 over the same period, while enterprises employing more than 100 people shed some 7000 jobs (Waterhouse et al. 1999, p.8).

Waterhouse et al. (1999) attribute the growing importance of small enterprises to shifts in Australia's industrial composition. Significant changes that have affected the employment composition include the downsizing and privatisation of public utilities and contractions in manufacturing employment.

Apprentices and trainees in small enterprises

The new apprenticeship system incorporating both apprenticeships and traineeships has emerged from Australia's traditional apprenticeship system. The traditional apprentice and traineeship system was developed to serve the needs of large enterprises, and trade-based employment. The large-enterprise focus of Australia's apprentice and traineeship system has meant that the employment-based training of firms other than large enterprises has generally been overlooked. The question is therefore, are enterprises other than large enterprises utilising the apprenticeship and traineeship system?

If we assume that apprenticeship and traineeship commencements are distributed evenly across all enterprises, and the percentage distribution of enterprises for 1998 equals that for 1995-96, then in 1998, 88 per cent (117 700) of all apprentice and trainee commencements are attributed to small enterprises. An objective of this research is to look in detail to determine how apprenticeship and traineeship commencements are distributed across types of enterprises, industries etc.

In his study of learning in small businesses Kearns (1995, cited in NCVER 1998) concluded that there was a tendency for small enterprises to see training as a cost, not an investment. This conclusion suggests that the extent of training, including employment-based training, for small enterprises could be expected to be relatively low. If the 1998 figure calculated for small-enterprise apprentice and trainee commencements are accurate, then it is clear that Kearns' (1995) perception of small-enterprise attitudes to training, at least as far as employment-based training is concerned, is not supported by the available data.

The increasingly important role in employment played by small enterprises and the flexibility introduced with the new apprenticeship system makes it of interest to examine the characteristics of employment-based training in small enterprises.

It is assumed those employment opportunities and conditions found in small enterprises differ from those in medium and large enterprises. The Productivity Commission (1996) found part-time employment is more prevalent in large enterprises than in small enterprises. Labour turnover tends to be higher in small enterprises; small enterprises tend to expend less on staff training than large enterprises; and casual employment (i.e. employees not entitled to paid sick leave) is more prevalent in small enterprises. Employees in small enterprises also receive lower average hourly earnings than employees of large enterprises.

PROPOSED RESEARCH METHODOLOGY

This project will focus on both the individual and the enterprises. By presenting these two perspectives it will be possible to determine if the objectives of the current apprenticeship and traineeship system are being achieved. It will also be possible to identify if there are particular attributes that affect an enterprise or an industry to train apprentices and trainees.

Research objectives

The research has several objectives. The principal objective is to describe the role of apprenticeship and traineeship training as a means for skill acquisition for individuals employed in Australian small enterprises.

From the perspective of the individual, the factors that influence the likelihood of an apprentice or trainee to remain in the employment of the enterprise after the completion of the apprenticeship or traineeship will be examined. From the perspective of the enterprise, the characteristics of firms' that effect their propensity to employ apprentices and trainees will be identified.

There are two hypotheses that will be tested as part of the research:

Hypothesis one

- Australian small enterprises are using the apprentice and traineeship system as a wage subsidy.

To test this hypothesis it is necessary to examine the labour market experiences of apprentices and trainees. The employment characteristics of apprentice and trainee graduates before, during, and following their training are indicators of the role being played by employment-based training.

The NCVER has managed three annual vocational education and training Graduate Destination Surveys (GDS) that commenced in 1997. The survey is conducted on during the last week of May and samples graduates from the previous calendar. The surveys collect information about graduates' general characteristics, fields of study, employment outcomes, occupations and industries of employment.

In this research, GDS data from 1997, 1998 and 1999 will be stacked to construct a cross-sectional time-series dataset. Stacking the GDS data from these three years provides data from a total of 24 500 apprentices and trainees. This sample represents approximately 18 per cent of all people who completed a contract of training between 1996 and 1998.

By stacking the results from three GDS surveys adequate data is available to enable appropriate analysis to be undertaken and conclusions to be derived. The stacked dataset will be analysed to determine the mobility of apprentices and trainees by enterprise size, industry and occupation. The cross-sectional nature of the stacked dataset will enable an analysis of the apprentices and trainees personal attributes that may influence their experiences in the labour force.

The time-series characteristic of the stacked dataset will also be used to determine if the conclusions drawn from the analysis are independent of the economic-cycle. That is, did the labour force experiences of the apprentices and trainees change throughout the three years included in the analysis.

To determine if the experiences of apprentices and trainees are dependent on the economic-cycles it is necessary to examine the experiences of the labour force as a whole. To enable a comparison, data from the ABS labour mobility surveys (conducted annually since 1972) will be used.

The labour mobility surveys provides information on persons aged 15-69 years who had worked at some time throughout the year. Details of job mobility, job tenure, number of employers or businesses during the year and reason for ceasing last job or changing locality are presented. Occupation, industry and duration of current and last job are also available. Estimates can be cross-classified by labour force demographics such as State, sex, age, marital-status and birthplace. This information will be compared to the results obtained from the analysis of the GDS to determine if the employment experiences of apprentice and trainee graduates differs from that of the labour force as a whole.

Hypothesis two

- the level of technological change, enterprise structure and business practices of Australian small enterprises affect their propensity to employ apprentices and trainees.

A study of small-enterprise in the United States found that enterprises involved in technological change, restructuring of the organisation and those with total-quality-management practices are more likely to provide training (Lankard-Brown, 1999, p.1). This project will assess if these findings hold in the Australian context.

To test this hypothesis it is necessary to analyse the business characteristics of Australian small enterprises that employ apprentices and trainees. In testing hypothesis two, data from the Business Longitudinal Survey (BLS) will be used. The BLS is a longitudinal survey conducted between 1994-95 and 1997-98 collecting information from enterprises employing less than 200 people. The survey can be considered as two parts. The first part forms the longitudinal or continual part, and consists of the remaining live businesses, while the second part consists of the new business units added to the survey from the Business Register. If analysis is limited only to those enterprises in the longitudinal section then a sample of 4 068 enterprises is available.

The data collection unit used in surveys conducted for the BLS is the 'management-unit'. In most cases management-units are the same as the legal-entity owning the business. However, in some cases enterprises may cover a number of management units, in this case some small-scale management units, that is employing less than 20 people, contained in the BLS may actually be part of a medium-sized or large-enterprise.

The 1997-98 BLS included 24 questions regarding enterprise training practices, therefore, the BLS can be used to test hypothesis two. Importantly the survey included a question relating to the enterprises use of apprentice and trainee training.

Questions related to employment-based training were not included in previous waves of the BLS. However, the time-series nature of the BLS and the continuity of the enterprises examined by the survey enables longitudinal analysis of business attributes which can then be related directly to the propensity of a firm to employ apprentices and trainees.

Information on the growth and performance of Australian employing enterprises was collected in the BLS and selected economic and structural characteristics and trends of these businesses can be identified. For example, trends in labour turnover, measuring the numbers of persons commencing and ceasing employment from 1995-96 through 1997-98, can be analysed against the number of enterprises that employ apprentices and trainees.

Other characteristics that can potentially be analysed from the BLS when determining what affects the propensity for small enterprises to employ apprentices or trainees, include:

- the characteristics of major decision makers, their educational attainment etc.;
- the business intentions and business practices of the enterprises, including those with documented formal strategic plans; and
- the training attributes of the enterprise.

CONCLUSIONS

Small enterprises, and their group-training surrogates, are important employers of apprentices and trainees.

Work completed in the US and Europe has shown that small enterprises continue to develop the majority of employment opportunities. Australian data supports these findings.

The purpose of the project is to identify the likelihood of apprentices and trainees continuing in employment after the completion of their training, and to identify the characteristics of small enterprises that utilise the apprenticeship and traineeship system in Australia.

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National VET Research and Evaluation Program

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NCVER

INTRODUCTION

The aim of this paper is to provide information to the Australian VET research community about how the National VET Research and Evaluation Program operates.

The program is managed by NCVER on behalf of the Australian National Training Authority. The National Research and Evaluation Committee (NREC) which is a special committee of the NCVER reporting to the NCVER Board oversees and guides the management of this program.

NREC is made up of 12 members as follows:
- Chair - NCVER Board member
- 4 nominees of ANTA Chief Executive Officers
- 3 NCVER nominees of individuals who have experience and expertise in VET research and evaluation
- 2 ANTA Board industry nominees
- 1 ANTA nominee
- 1 Commonwealth nominee:

NCVER was contracted to run the national program of VET research from 1997-2000 and has recently been contracted for a further 3 years to manage the program until 2002. Prior to this the ANTA Research Advisory Council managed the program.

The research projects have generally resulted from a call for researchers to submit expressions of interest and full project proposals to the NCVER. In order to encourage diversity and creativity within research in the VET sector, the research program is open to any researcher or research organisation to participate in. Each round is advertised in the national media. All submissions are evaluated by the National Research and Evaluation Committee who select the successful projects. On occasions specific research projects are commissioned.

Over the period 1997-1999 NREC has funded three types of project:
- Research projects which address key research priorities that have been identified by the National Research and Evaluation Committee
- Research projects which address issues which have been raised by researchers through the open category.
- Consolidation studies which are generally short 3-6 month studies to review all the literature in a given topic so as to consolidate the findings from this body of work and identify any gaps.

In addition to funding research, NREC funds are used to manage the program, to enhance and maintain the VOCED database and to disseminate the results of the research. During the period 1997-1999 77% of the funding was spent on research and management of the research program, 16% was spent on dissemination and 7% was spent enhancing the VOCED database.

This paper gives a broad overview of the following aspects of the National VET research and evaluation program:
- National VET research and evaluation strategy
- Basic statistics on the program
- Research priorities that have been addressed
- Consolidation Studies
- The process to identify priorities for 2000
- Research priorities for 2000
- Assuring the quality of the program
- Dissemination of the program
- Challenges still facing the program

NATIONAL RESEARCH AND EVALUATION STRATEGY

National Research and Evaluation Strategy for Vocational Education and Training in Australia 1998-2000 provides the framework for all research and consolidation studies.

In this document 6 priorities for national VET research and evaluation are identified:
- Economic and social implications of VET
- Employment and the workforce
- Pathways from school to work
- Outcomes of the VET sector
- Quality of provision of VET
- Future issues affecting the VET sector

This strategy will soon be further developed to bring it in line with the ANTA National Strategy for VET 1997-2003 (a Bridge to the Future) and current work being undertaken by ANTA resulting from its major marketing project.

BASIC STATISTICS REGARDING THE 1998 AND 1999 FUNDING ROUNDS

The figures below provide information regarding number of expressions of interest received, who has conducted national VET research during this period, the type of research that was funded and the number of projects undertaken.

Success rate

Over the last two funding rounds (1998 and 1999) NREC received a total of 307 expressions of interest that resulted in 56 projects. On this crude measure, the success rate for submissions during this period was approximately 18%. In addition during this period a further 10 projects were commissioned.

Who is doing all the research?

During this period VET research was conducted mainly by:
- university research centres (60%)
- private consultants (32%)
- TAFE institutes (5%)

What type of projects were funded?

In terms of the three categories of research that are generally funded (research projects addressing key priorities, research projects under the open category and consolidation studies)
- approximately 70% of the research funding addressed key priority areas
- approximately 24% of the research funding addressed issues raised through the open category
- approximately 6% of the research funding went into consolidation studies.

How many national VET research projects are there?

Over the period 1997-1999 113 projects were funded: 51 are complete and 62 are still in progress. Of these 62 projects 12 are from the 1997 round, 14 are from the 1998 round and 36 are from the 1999 round. In addition NREC inherited 27 projects funded under ANTARAC in 1995 and 1995.

Of the 113 projects, 32 were consolidation studies and 81 were research projects.

RESEARCH PRIORITIES 1997-1999

During the first three years of the contract to manage National VET research the following priorities were nominated by NREC and research projects were funded accordingly:

1997	1998	1999
equity	return to the enterprise of an investment in training	Australia's apprenticeship/traineeship system
job change/industry outlook	changing nature of work	training/learning culture
schools and VET	evaluation of CBT	participation/entitlement to training
small business	cross sectoral studies (scoping studies)	outcomes of VET
training market	lifelong learning	evaluation of training packages
consolidation studies	internationalisation of VET	evaluation of frontline management initiative
workplace learning		
future visions and VET		

Other themes which have been dealt with across the three funding rounds include:

- Outcomes of VET
- Assessment (particularly a competency-based approach and how to improve the validity and quality of assessment in a competency-based approach)

CONSOLIDATION STUDIES

The general themes that have been dealt with through consolidation studies include:

- equity groups
- language and literacy
- international comparisons of VET systems
- on-line delivery
- range of other issues including market reform, small business, outcomes of VET, assessment

Appendix A to this paper provides a complete list of the consolidation studies undertaken to date within the national VET research program.

PROCESS FOR IDENTIFYING NATIONAL VET RESEARCH PRIORITIES FOR 2000

During the period October 1999 - January 2000 NCVER consulted with representatives of the following organisations to ask their views on what the priorities for VET research should be.

Organisation
ANTA
DETYA
All State/Territory training authorities
ACTU
ACCI
AIG
BCA
Institutes of TAFE
Industry Training Advisory Boards
AVETRA members

A total of 70 people met with NCVER staff to put forward their views on research priorities. In addition a fax questionnaire was sent to TAFE directors, directors of national and state industry training advisory boards and AVETRA members. The questionnaire listed the priorities that had emerged to date as a result of consultations and asked respondents to nominate the top six key issues that they felt required further research. The response rates were good for TAFE Institutes and ITABs. The response rate for AVETRA members may not be accurate given that it is unclear how many of the people who were sent the questionnaires are still AVETRA members. However to receive 37 responses was encouraging.

	No. of questionnaires sent out	No. of responses received	Response rate
TAFE Institutes	79	52	65%
ITABs	86	36	42%
AVETRA members	300 (??)	36	8%

The priorities which have been identified for VET research in 2000 are based on the consultations and questionnaire responses as well as:

- what is known so far about the findings of the marketing strategy being undertaken by ANTA
- the proposed work programs of the other ANTA funded research centres and partners
- the existing program of research in VET.

NATIONAL VET RESEARCH PRIORITIES FOR 2000

As a result of this consultation process, NREC has identified the following priorities for National VET research in 2000:

- the quality of VET provision
- the new VET professional
- management and leadership in training organisations
- new/generic skills for the workforce
- flexible learning and teaching
- outcomes of VET

Major issues such as equity/social inclusion, lifelong learning and training packages form key aspects of each of the priorities identified and therefore have not been listed as separate priorities. They are an integral part of each theme.

In addition the open category encourages researchers to put forward proposals that address:

- long range strategic issues in VET research
- any other priorities for VET research not already nominated.

The long range strategic questions include:

1. What has been the impact of the development of an open market in the VET sector?
2. What is the overall performance of the national VET system?
3. How well is the national VET system placed to meet the needs of all segments of the learning community?
4. What models of learning communities are there in Australia and what lessons do these communities have for the VET system as it embraces the concept of lifelong learning?
5. What are inclusive models of participation that address the needs of students at risk?
6. What are client perspectives on value for money in VET?
7. What are the cross-sectoral issues that need further research and to what extent is the education system 'seamless'?
8. How does the VET industry compare with other systems which operate federally - for example - health and industrial relations?

ASSURING THE QUALITY OF THE PROGRAM

The aim of the National Research and Evaluation program is to conduct research in the vocational education and training sector which is applied in nature, which looks beyond specific contexts and which produces outcomes with applications to both policy and practice.

In 1999 ANTA funded a review of the national program of research. The review noted that the quantity of VET research had increased over the period 1997-99 and that there had been some improvement in quality.

In order to ensure that the aim of the program is achieved and that there is substantial improvement in the quality of the program, quality approaches have been built into all stages of the research process:

1. Identification of research themes and priorities
2. Selection of projects
3. Conduct of the research
4. Presentation of the research report
5. Contact with and feedback from the research community and users of VET research

Activities which address the issue of the quality of the program are detailed below.

1. IDENTIFICATION OF RESEARCH THEMES AND PRIORITIES

Activity
During the period September 1999 - February 2000 NCVER met with representatives of ANTA, DETYA, state and territory training authorities, employer groups, ACTU to find out what these groups believe the research priorities for VET should be. In addition a fax questionnaire was sent out to all national and state Industry Training Advisory Boards and Directors of TAFE Institutes as well as AVETRA members asking them to nominate 6 key issues that require national VET research.

Additional quality measures planned
- Consideration of international trends and developments and research that is being conducted overseas
- Adopting a system of references to ensure that research addresses the critically important current policy issues.

2. SELECTION OF PROJECTS

Activity
NCVER has changed the selection procedure as follows:
- Applicants for funds are required only to submit a single project proposal rather than an expression of interest and a project proposal
- All members of the National Research and Evaluation Committee are involved in the selection process through being members of specialist panels which each evaluate the proposals within a given priority/theme.
- Briefing notes and clear guidelines for project proposals are produced
- Applicants are encouraged to use the VOCED database in order to keep up to date with current research in the field
- Applicants are given 6 weeks to prepare their project proposals
- Non-VET sector applicants are encouraged to develop partnerships with VET sector research staff based in training organisations.

Additional quality measures planned
- Provide better feedback to those applicants who narrowly missed being shortlisted.
- Include the general feedback sheet developed for those who were unsuccessful in the last funding round in the information kit for the next round.

3. THE CONDUCT OF THE RESEARCH

Activity
- In order to provide feedback to researchers throughout the project, NCVER has built into the contract a requirement for two interim reports and draft final report to be submitted for external review.
- Other initiatives taken by NCVER include organising meetings of groups of researchers who are all working on a common theme (eg apprenticeship system, training/learning culture).
- NCVER is seeking to expand its pool of external reviewers and has written to NREC members asking them to identify potential reviewers for specific themes/priorities for research. NREC also asks researchers to nominate names of reviewers.
- NCVER has developed set of questions for reviewers to answer when providing feedback to researchers.

If a reviewer expresses concern about a project, then the National Research and Evaluation Branch intervenes to assist the researchers in better achieving the outcomes of the project by:
- Holding a teleconference or meeting with the researchers to discuss reviewer concerns and getting agreement on how the concerns are to be dealt with.
- Arranging for another VET researcher to provide mentoring/guidance to the research team conducting the research (in the case of researchers who do not have a strong VET background).

Additional quality measures planned
Seek feedback from researchers on the value of the review process and the feedback they received.

4. THE PRESENTATION OF THE RESEARCH REPORT

Activity

- NCVER has developed an author's kit and report template to ensure that all reports are presented in house style and are no longer than 100 pages (research reports).
- All research reports are edited by professional editor before being sent to marketing and publishing for printing.

Additional quality measures planned

- Improve on the author's kit by providing more guidance for the writing of executive summaries and more guidance on the structure of the final report.
- Develop a set of criteria which must be met if the report is to be published

5. CONTACT WITH AND FEEDBACK FROM THE RESEARCH COMMUNITY AND USERS OF VET RESEARCH

Activity

- A newsletter is sent to all researchers on a quarterly basis. So far two newsletters have been produced and a third is in preparation.

Additional quality measures planned

There are plans to develop a process at the end of each project of getting feedback from researchers on the work they did, problems encountered, support provided by NCVER, areas for improvement. Options being considered include:

- sending out a questionnaire to researchers
- holding a debrief session with researchers
- arranging for an external reviewer to gather feedback from researchers and report to NCVER.

NCVER is currently working on how best to get feedback from users of VET research.

DISSEMINATING THE RESULTS OF THE RESEARCH

At NCVER, the dissemination, marketing and publishing division is responsible for publishing the outcomes of the NREC-funded research program, the NCVER in-house research program and the reports produced by the statistics division.

Dissemination is being achieved through 3 main means:

- the web (http://www.ncver.edu.au)
- a range of publications
- a range of workshops/seminars/forums

In addition NCVER provides opportunity for VET researchers to hear about and discuss their work through a range of activities. Further details of each of the dissemination activities as well as the initiatives to support VET researchers are provided below.

The web

The NCVER web-site has sections devoted to:

- research
- statistics
- library, including VOCED database
- reading room
- news and events

NCVER is currently in the process of upgrading the research pages on the web.

Research pages can be searched by theme, by topic and by author. For each project undertaken through the NREC funding program and the in-house program of research, a project description listing aims of project, methodology, proposed outcomes and contact details of researcher is listed. Once the project is complete, the executive summary of the report is placed on the web. There are plans to place complete research reports on the web as well as links to other interim products of the research (for example conference papers).

Range of publications

The main product of a research project is either a research report or a review of research:

1. The research reports are the main product of each research project and are generally 100 pages in length. At present approximately 200-500 copies are printed and they are distributed to subscribers and to a range of key stakeholders such as college directors, college libraries, ANTA, DETYA, State training authorities. They are also available for sale through the NCVER catalogue. The distribution and notification processes for the publications are being reviewed at present.

2. Reviews of research are essentially consolidation studies which analyse all the research undertaken in the last 10 years in Australia on a certain theme (for example on-line delivery, VET and non-English speakers) and which identify gaps in the research. They are distributed free to subscribers and to the range of stakeholders identified above. They are also available for sale through the NCVER catalogue.

Besides these main products, NCVER produces a range of other publications which either summarise the outcomes of research or promote the research.

Summarising the outcomes of NCVER research

1. *Research at a glance* - a short 8 page publication that summarises the research on particular themes. To date two have been produced:
   - Small business and VET
   - Early school leavers

   Others in this series currently being developed are research at a glance on:
   - competency-based training
   - life long learning
   - the changing nature of work
   - workplace learning

2. *Research says* - a quarterly newsletter which is distributed widely in the sector by email and in print. This publication summarises very briefly the outcomes of research which has recently been completed. It also provides information on key initiatives and developments in the sector and includes summaries of key VET documents produced outside of NCVER.

3. *Australian Training Review* is produced quarterly and is a magazine which invites articles from VET researchers, policy makers and teachers about research and initiatives in VET. Researchers who conduct NCVER research are encouraged to submit light, magazine style articles on their work and thus it can be used to alert its readership to the outcomes of NCVER research. It is distributed free mainly to TAFE colleges and Industry Training Advisory Boards. It is also available for sale in newsagents.

4. Submitting articles to professional magazines (for example Australian TAFE teacher) and journals about specific NCVER research projects.

5. Supporting the publication of the half-yearly AVETRA journal *Australian New Zealand Journal of VET*. VET researchers are invited to submit papers to this journal. This journal is available to subscribers and AVETRA members.

Promoting NCVER research

NCVER and NREC-funded research is promoted by various means:

1. Publication of a catalogue listing all NCVER publications. This catalogue is also published on-line. In the future sales will be made using e-commerce.

2. Producing flyers about groups of research projects (eg life long learning, competency-based training, VET and people with a disability) and sending these out to people and organisations most likely to be interested in the research.

3. Placing advertisements in magazines about projects which are relevant to the readership of the magazine.

4. Maintaining the NCVER display and information booth at a range of major conferences. The NCVER display includes a computer with on-line facilities to showcase the web-site, the VOCED database and the range of information that is on the NCVER website as well as samples of NCVER printed materials.

Workshops, forums and seminars

1. NCVER has plans for a series of Research Forums to be held in different states and territories throughout the year. The aim of these forums is to showcase the results of a suite of projects and to provide an opportunity for practitioners to discuss research findings with researchers.

   - The first CBT research forum was held in Adelaide. There are plans to repeat this forum in Perth and Sydney later this year.
   - Other forums planned include the Changing nature of work and its implications for VET to be held in Melbourne, Hobart and Brisbane later this year.

2. Policy briefing workshops have been held in each capital city throughout 1998 and 1999. The aim of these workshops was to present findings of the research program to representatives of the state and territory training authorities. There are plans to extend this program of briefings to providers this year.

Other activities to support the national VET research

In addition to dissemination activities, NCVER has taken steps to provide more information and support to VET researchers through:

1. Upgrading the VOCED database so that it includes abstracts of articles related to VET produced by a wide range of overseas journals and monographs dated from 1995 to the present

2. Hosting the annual No Frills Conference which aims to provide VET researchers and practitioners with an opportunity to present papers on work in progress and provides an opportunity for VET researchers to discuss their findings.

3. Producing a quarterly newsletter distributed free to researchers who are undertaking projects under the National VET research and evaluation program

4. Holding workshops at the AVETRA conference to introduce researchers to the NCVER author's kit and report template.

5. Hosting researcher workshops during the life of a project. The aim of these is to bring VET researchers who are all working on the same theme (for example return on a training investment, changing nature of work, lifelong learning, Australia's apprenticeship system) so that they can discuss work in progress and preliminary findings with each other. This also provides an opportunity to consider the most appropriate ways of reporting and disseminating the findings. Value-added products based on project synergies are also possible.

CHALLENGES STILL FACING THE PROGRAM

The main challenge facing the program at present is to develop ways of evaluating the impact of the research program - is it making a difference. Further challenges relate to the management of the program and dissemination:

- If research reports are not read, what outcomes should we be funding researchers to produce?

- Should we develop criteria for publication and require that these criteria be met in order for a report to be published?
- Is web publishing the way to go?

NCVER welcomes dialogue with AVETRA members regarding these challenges and any other issues that AVETRA members would like to raise concerning the program.

APPENDIX A

A list of the consolidation studies undertaken during the period 1997-1999 as part of the national VET research program.

Vocational education in schools	R Ryan
Assessor training programs	R Docking
Returns to enterprises from investment in VET	S Billett
Flexible delivery of training	P Kearns
Learning in the workplace	P Hager
Quality assurance in VET	P Hager
Entry-level training	D Lundberg
Competition and market reform in the Australian VET sector	D Anderson
A brief history of the evaluation of VET in Australia	R McDonald, G Hayton
Public and private training provision	K Barnett
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The university—VET transition

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ABSTRACT

Movement (articulation) from the university sector to the vocational education and training (VET) sector in Australia was virtually unknown until studies by Golding beginning in 1993. This paper identifies some factors associated with this movement phenomenon and its prevalence, and discusses a two-way model of movement to explain and model it. It summarises some of what is now known about university to TAFE movement and the associated recognition (credit transfer). Some implications are also identified for policy makers. Finally, the paper identifies some problems and solutions associated with modelling two-way, inter-sectoral movement and recognition between the VET and university sectors in Australia.

INTRODUCTION

> ... 'reverse articulation' is a phenomenon which has grown without any perceived encouragement by government, educational authorities or institutions. Demand has been a function of individual need.
>
> (Haas, 1999, 10)

SETTING THE SCENE FOR INTER-SECTORAL MOVEMENT

In the context of rapid changes in education and training, some phenomena become established in practice before they are systematically identified or closely examined by research or become incorporated into policy. Phenomena which fall outside or which run counter to a prevailing policy, sectoral or qualifications framework, status or hierarchy are less likely to be detected or examined by research. Movement of students from university to vocational education and training (VET), which forms the focus of this discussion paper, falls into each of these categories.

This paper is based on original and serendipitous research in Australia by Golding, commencing in 1993 and culminating in a PhD (Golding 1999a; summarised in Golding 1999b), which uncovered the considerable size and complexity of university to TAFE (UT) movement, primarily in Victoria. This research has since been validated widely disseminated and debated nationally. Some of the research has been validated by Millican (1995), NTCC (1995) and Werner (1998).

Examination of UT movement, particularly in relation to movement in the opposite direction from TAFE to university (TU), has led to a rethinking of the idea of a universally 'upward' movement after school through training to education. The phenomenon provides evidence of the important role that VET (in its many forms) plays for individual adults seeking recurrent, lifelong learning, beyond its more limited role in imparting entry level, industry-related competencies to employees for enterprises.

The research has led to a realisation that the previous one-way models of movement, which lead only to university as the end goal, are not only simplistic, illusory and inaccurate: they have been misleading, patronising and destabilising of TAFE from a student and policy perspective. Finally, the research has led to some rethinking of the role of credit transfer associated with two-way movement. In summary, it has suggested that recognition (credit transfer) plays a lesser role in that movement between post-secondary sectors than had previously been widely assumed.

Trends in post-secondary education and training participation data in Australia illustrate the increasingly non-linear nature of the route from school to work, with work often being undertaken concurrent to study. Indeed, around half of both TAFE and higher education full-time students, and around 90 per cent of TAFE and higher education part-time students participate in the labour force while studying (ABS 1998, Table 5.27, p.66).

In summary, distinctions between VET and university based solely on assumptions of vocational preparation and intent for young school leavers on the way to work are at best artificial and ambiguous and at worst highly inaccurate. Studies of two-way movement and transition which form the focus of this paper have the potential to identify and explore some of that ambiguity and inaccuracy from a student perspective.

TWO-WAY MOVEMENT, IN AUSTRALIA 1990-1998

This paper proceeds on the assumption that a two-way movement model linked to the notion of lifelong learning is more useful than a one-way articulation and credit transfer model in explaining movement and recognition between the VET and higher education sectors in Australia.

OECD (1991, 76) noted that in education and training systems with strong institutional and sectoral differentiation, it is difficult but necessary,

> Both from a social equity and from an employment perspective ... that the structure and organisation of studies enable students and graduates to move across sectors and institutions, allow alternation between work and study, as well as later re-entry into higher education.

The opportunities for one-way movement, and particularly for recognition (credit transfer) from the university sector to the non-university sector (NUS), have received considerable attention in Australia since 1985 (Parkinson 1985; Parkinson, Mitchell and McBeath 1986). Articulation and credit transfer policies, projects and arrangements have focussed on 'upward' movement from TAFE to university within related fields of study. However as in most European countries to 1991, in Australia there had been '... little transfer from the NUS to universities and/or such transfers may involve considerable time penalty or financial cost' (OECD 1991).

Movement to TAFE, though unknown prior to 1993, apparently peaked in 1991 before it was identified, coinciding with an elevated flow of university graduates into TAFE at the height of the economic recession and at a time of reduced graduate employment. This movement was totally unanticipated by either policy makers or those students making that transition. Nevertheless an increase in applications for professionally oriented courses offered by the NUS was noted by the OECD in many countries including the United States (OECD 1991, 76). These so-called 'reverse transfer' of students and graduates were primarily moving '... from academic university disciplines, and seeking a double qualification'.

It is of some interest to reflect on the circumstances which leads to both forms of movement in particular countries. Haas (1999, 30), in a review of articulation arrangements in Australia between Technical and Vocational Education (TVE) and five other South East Asian countries, noted an apparent

> ... correlation between broad availability of TVE/higher education articulation arrangements, and an economy that has a significant services sector, high technology industries and substantial manufacturing capacity. Such a national economy demands continual workforce retraining/upgrading.

In the absence of comparable information or research on university to VET movement in other countries, it is difficult to identify with certainty what factors outside of VET and universities in Australia led to such a sudden, large but delayed outflow to TAFE in particular in the early 1990s. Three factors may be particularly relevant in Australia in the early 1990s: the rapidity of labour market restructure associated with the economic recession of the early 1990s: the associated high graduate and general unemployment, and particularly the introduction of the Higher Education Contribution Scheme (HECS) in 1989.

Even for those without a completed degree, a subsequent and often delayed move to TAFE holds a number of related but slightly different benefits. Indeed, people who have not completed a university degree are in a very different situation in TAFE to those with a degree. Apart from being younger on average and more likely to be male, they are often more critically reflective of the university experience, and generally have more to gain from completing a higher level, vocational course in TAFE than many university graduates.

Some parallels can be drawn from research documenting moves from university to other forms of VET offered in community owned and managed (ACE) providers. This includes Volkoff, Golding and Jenkin's (1999) study of VET in Adult and Community Education (ACE) and Golding and Volkoff's (1998) longitudinal study of VET.

Many of the diverse university to VET transitions evident at a micro level are explicable from the perspective of the individual student. There is a need to consider a wide range of factors (age, life phase, gender, geographic, personal, linguistic, cultural, social, economic, vocational) over the course of a lifetime to make sense of particular transitions to VET after university. They also illustrate the danger of leaping to a conclusion about single factors associated with the choice of a transition to VET after university for an individual, or of ascribing a single contextual cause or single change of circumstance.

One clear and unambiguous finding is that the common transition to VET after university was almost totally unanticipated by individuals at the time of enrolment in university, whereas the less common 'VET to university' transition was very widely anticipated. This raises the question of what had changed in people's personal or working lives, or in their sectoral perceptions, which led them to make this unforeseen transition at frequencies and in directions quite different from those intuitively predicted.

Because university to VET movement was unanticipated in Australia from a policy perspective, it is important to ask what factors had apparently inhibited (or not previously drawn attention to) university to VET movement in Australia, or why that movement had not more prevalent in other countries. As Haas (1999) alludes to in the opening quote, the phenomenon occurred in Australia as a response to individual need in spite of the low status of VET qualifications generally, and of TAFE and ACE provision in particular.

The well-known rush during the 1980s for the status associated with a university qualifications has not abated. What has changed is the ability of a completed degree to set up a student for a career for life in the much more difficult labour market in the 1990s. Despite TAFE's 'ugly ducking' status in relation to university, and without discounting a wide range of factors affecting individuals, more university is no longer the only answer or first choice for many people. This is particularly so for the short, sharp, cheap and vocationally specific learning required by many adult university graduates involved in ambiguous transitions into or between jobs, as well as for those who for whatever reason, fail to finish a university course.

SOME CONNECTIONS WITH RECOGNITION DURING THE SAME PERIOD

There is not space in this paper to tease out the recognition (credit transfer) implications of this pattern of movement identified in Golding (1994) and elaborated in Golding (1999a). In summary, in the case of TU movement for undergraduate commencers in the period from 1991 to 1997,

- recognition for prior TAFE has comprised a small but growing proportion of total university recognition;
- the proportion achieving recognition at university for previous TAFE study has been increasing more rapidly than the total proportion achieving some recognition;
- between 1991 and 1997 the proportion of those with prior TAFE study achieving some recognition increased from around one quarter to one half.

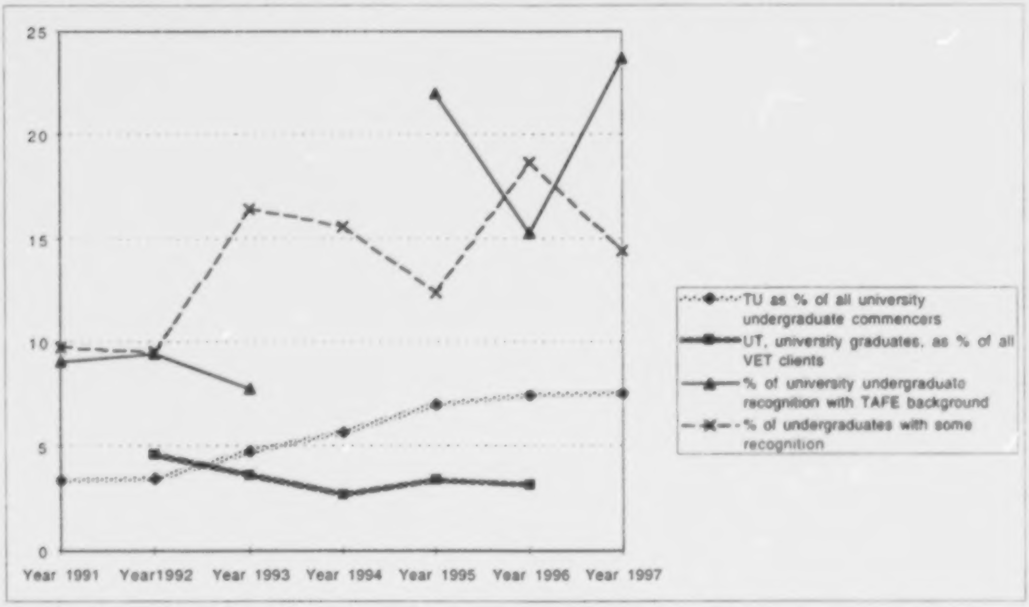
The data on movement and recognition in summary

In the case of UT movement for VET commencers in vocational programs in the period from 1991 to 1997, the proportion with prior university completions has fluctuated between 2.2 per cent and 5.5 per cent. In that period, around 40,000 VET clients per year in vocational programs in Australia had previously completed a degree. On the basis of survey data from Golding (1999a), a similar (but additional unknown number and proportion) would previously have discontinued at university. By contrast between 5,000 and 14,000 university commencers had previously undertaken a TAFE course.

On balance, within the limitations of the data, it is possible to compare the extent to which the number of VET clients in Australia with a completed university award has outnumbered university undergraduate commencers with some prior TAFE experience. This UT to TU ratio has been decreasing since 1991, but has remained between 3.5 to 1 (1994) and 6.9 to 1 (1991). As argued in Golding (1999b), the backwash has certainly been swamping the wave, and for many tertiary students and policy makers, the backwash has come out of nowhere.

Figure 1 displays percentages of total commencers (for university data) and percentages of total clients (for VET data). It also displays the proportion of all undergraduate commencers receiving some recognition and the proportion of those receiving some recognition with previous TAFE backgrounds. The graph shows that while there has been a steady growth in university commencers with previous TAFE backgrounds (and TU recognition associated with that movement), there has been a decline in the proportion of TAFE clients with university degrees.

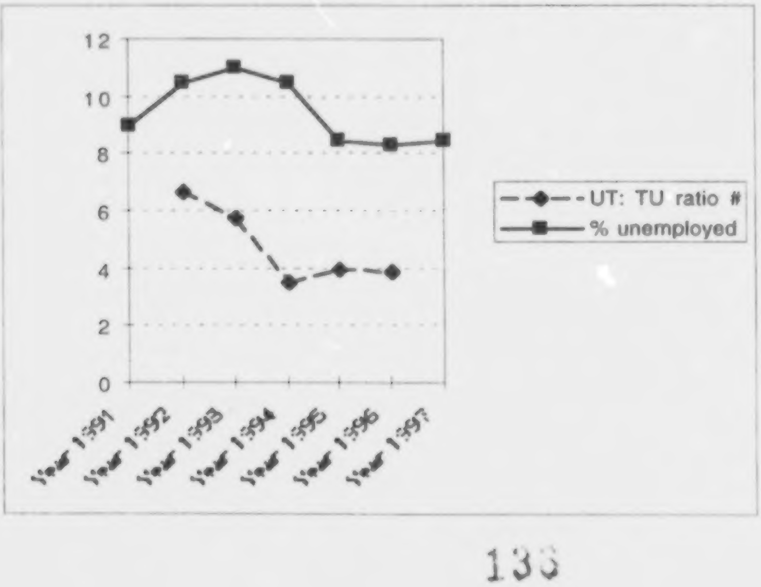
Figure 1: Comparison of two-way movement and recognition between university and TAFE, 1991-1997



Source: Golding (1999a). **Note**: Break in series for VET data in 1994; no university data available for 1994; UT data are based on VET clients who were university graduates, whereas the TU data are based on university commencers with TAFE backgrounds (complete or incomplete).

Figure 2 displays the ratio of the number TAFE clients who were previous university graduates to the number of undergraduate commencers with previous TAFE backgrounds (complete or incomplete). That ratio has been dropping since 1991, but remains close to 4: 1.

Figure 2: Comparison of UT and TU movement # with unemployment rates Australia, 1991-1997



Sources: See TU and UT details below Table 1; TU = TAFE to university, UT = university to TAFE; unemployment rates from ABS 1998 *Labour force*, Cat. No. 6203.0.

Note: Break in series for VET data in 1994; # UT data are based on VET *clients* who were university *graduates*, whereas the TU data are based on university *commencers* with TAFE backgrounds (complete or incomplete).

WHAT HAS CHANGED SINCE 1990 AND WHAT POLICY QUESTIONS DOES IT RAISE?

University to VET movement is but one window into some of the changes that took place in the labour market and the workplace in the 1990s. The appearance of UT movement coincided with a time of domestic oversupply of university graduates in the 1990-1993 period and with a low uptake of highly skilled immigrants (Hawthorne 1994). There was a sudden decline in the proportion of graduates available for full-time work and actually working after completing their course.

Graduate Careers Council of Australia annual surveys (eg 1994, p.10) document a crash from 88 per cent of graduates employed in 1990 to 71 per cent employed in 1992. For example unemployment amongst Australian engineers rose from 1 per cent in 1991 to 10 per cent the following year. Stahl et al. (1993) identified problems associated the increasing number of transients with skills (people moving from one point of support to another). This situation in the domestic labour market was not unnoticed by people in work, who were obliged throughout the 1990s to do more study and to acquire new qualifications and skills simply to keep ahead of competitors inside and outside of their workplace.

The minimum credential required to access a basic, entry level course or job has fundamentally changed in an upward direction. Opportunities for those in work without any credential have also considerably diminished. Prior to 1990, if an employer wanted a 'runner', it was sufficient to advertise for a 'walker' and to train them to run later. In many areas of employment in the late 1990s, if a runner is required, a runner's job is advertised, and the field of competitors available for interview consists of a large field of experienced heptathletes. When the heptathlete is employed, other employees have a large incentive to do more than run.

The route to initial work through 'entry level' education and training in Australia has become much more ambiguous, protracted and indirect. Multi-skilling and an ability to engage in lifelong learning, once optional attributes, have become essential. In summary, university to VET movement is more indicative of changes which have been occurring to individuals rather than to changed VET or university policy or provision.

UT movement raises important questions about the different applicability of competency-based, self-paced, flexible delivery teaching methods to mixed groups comprising older, highly motivated university graduates alongside younger, less directed students directly from school. The resistance to competency-based curriculum and assessment reinforces the fact that not all VET participants are there for the same reason - some are there out of interest, and the majority are already employed, making employment outcome data meaningless without taking account of individual intention.

UT movement also raises the question of displacement effects as a consequence of postgraduate study in VET and the more general question of what people are actually doing at both TAFE and university. Golding (1999a) has provided the first evidence that TAFE effectively absorbs university graduates at times of high demand for university places and low demand for graduates in the labour market, and that inter-sectoral flows are employment related. Recent policy interest in movement relativities in favour of movement to TAFE, particularly by university graduates, is partly because evidence of UT absorption runs directly counter to the previous and widespread perception of TAFE as a destination for people who cannot get into university. One of the drawbacks of UT movement for students, particularly when jobs are scarce, such as was hypothesised in Victoria during 1991 (Golding 1999a), is the potential displacement of TAFE's traditional clients.

If alternative favourable options (particularly for employment or postgraduate university study) are reduced for university graduates, the probability of UT movement increases. In a fixed places regime within universities, the options for TU movement presumably decrease. UT movement presumably limits study options for school leavers and TAFE graduates at times of high demand for university, particularly during periods of concurrent, high unemployment.

Werner (1998, 67) identified a number of policy initiatives '... should TAFE wish to attract more clients from the higher education graduate market': mainly teaching styles, course design, services and facilities. Apart from these participant-centred possibilities, the most likely outcome of better knowledge of UT movement is an altered, perhaps improved image of TAFE in relation to university. The secondary sector has traditionally held TAFE in low esteem in relation to university. If this changed and more exit Year 12s went directly to TAFE, though there might be less UT correction at a later date, there might also be more TU movement. If TAFE was perceived as a vocationally useful postgraduate destination after university, it might decrease demand for postgraduate university study, particularly at a graduate diploma level, but in turn displace school leavers, particularly school leavers, at initial vocational levels in TAFE.

Some policy implications associated with UT movement were identified in Golding (1994c). Although the movement is consistent with an emphasis in the late 1990s in all post-secondary education sectors of policies which encourage lifelong, recurrent learning, the size of the UT movement has particular implications for potential commencers in TAFE without university backgrounds who are seeking initial, middle-level, vocational training. The major recognition-related implications are the large size of the flow relative to the available recognition arrangements and the problems of recognising non-CBT learning acquired from university in a CBT context. In summary, UT movement in Australia now involves a movement direction, volume, manner and prior backgrounds not easily anticipated or accommodated by existing recognition policies or practices before the current research.

There is a general lack of congruence between policies promoting movement and recognition on 'pathways' between different sectors and the use of such pathways. These poor matches between policy and movement were described by Dwyer et al. (1996, 3) who observed '... that the usual tendency of defining transitions beyond school in terms of certain predetermined linear pathways fails to do justice to the actual experience and choices of young people.'

There is a need to rethink the assumption that post-secondary participants crossing sectors have a single prior post-secondary background and also of the notion of the 'highest level of study'. Reporting of movement and recognition by students with a single sectoral background becomes less meaningful as the frequency of multiple, prior, post-secondary backgrounds increases. Reporting on prior study solely by 'highest level of study' or on the 'basis for admission' categorisation continues to under-report widespread multiple backgrounds of students on the move within and between sectors.

CONCLUSIONS AND IMPLICATIONS

This paper has identified limitations to previous models of recognition which failed to account for the complexity and serendipitous nature of much two-way movement, the relatively minor role played by a desire for recognition and pre-eminence of the issue of access over recognition. Much of the policy focus to date has been on improved recognition arrangements rather than on movement. Recognition arrangements, however, are inevitably conditional on entry to courses and programs.

The high levels of recognition associated with movement into multi-sectoral institutions compared to single-sector movement identified in Golding (1999a) illustrates, in part, the potential for sectoral cooperation within and across particular institutions to enhance outcomes for students. Arrangements have been developed and maintained with most enthusiasm in the multi-sectoral institutions, which perhaps have more to gain from facilitating two-way movement and by casting a wider prospective student net.

In conclusion, it is important again to stress the importance of student experiences of movement and recognition, rather than their political and social construction. The paper provides evidence that movement and recognition policy, while the result of political processes influenced by political need (eg unemployment, sectors 'out of balance') is subject to and mediated by other factors at an institutional and a bureaucratic level. As OECD (1998, 384) suggested, 'The difficulty, then is to identify pathways independently of policy intentions on one hand, and of student movements on the other.'

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Voices in VET: What is it like to be involved in VET programs in schools? An apprentice researcher's journey

Annette Green

INTRODUCTION

The abstract I provided to AVETRA describes a study of the shifts in senior secondary education in NSW over the past decade, in particular the expansion of VET in Schools and the inclusion of VET course in the HSC this year. It also concerns the increasing retention of students from the lower achievement bands in Years 11 and 12. However, that project is still in its very early stages, so I have changed my paper to an examination of the processes and considerations which a new researcher needs to think about when starting on the research journey. Therefore, unlike most AVETRA presentations which report on research already completed or in progress, this paper will examine the meta activity of beginning research, examining the processes researchers go through during these early stages, making explicit the ideas, thinking, skills and tools embedded in research but rarely discussed. Now is the time for those experienced researchers to withdraw while I tell a very small story or puzzle which serves as an analogy for research methodology issues. I will return to this analogy later. This will give you something to ponder on during the less interesting sections and there is a prize for the best or first answer at the end.

> A thirsty crow found a pitcher of water in a garden and perched on the side to get a drink. There was only a little water in the bottom, and no matter how hard he tried, the pitcher was too deep and his beak too short, so he could not drink. He thought for a while, then found a way to slake his thirst. What did he do?
> *Aesop's Fables*

When I first contemplated engaging in research as a new academic last year, a colleague gave me an excellent piece of advice. It was to go with my passion. A doctorate requires more commitment that a marriage, it seems from my experience, so I started the journey by examining my working life and very diverse career to see what themes or passions emerged. VET is an emerging discipline attracting people from diverse backgrounds. VET in schools also brings divergence of experience and cultures into a reasonably rigid system, with change as a natural consequence of this diversity. A brief look at my background revealed an interest in those who did not fit into traditional educational contexts as well as a continuing perception of my role as an agent of change.

In my first teaching job in New Zealand in the seventies, I taught French, but I was given a 'fourth form' class (Year 9) called 4 CT made up of thirty-six social and educational rejects. I could name and tell stories of almost all these students even today, although my five French classes are a vague blur. When I arrived in Australia, after some vocational diversions such as the language laboratory at the University of Queensland and being a deckhand on a prawn trawler in the Gulf for a few years, I started teaching on remote Aboriginal and Torres Strait Island communities in far North Queensland. Here my interest in students who did not fit traditional school systems increased apace, but my main focus remained providing programs and support to make the students fit in with the system as it was. An example of an effort during this time was creating a three-year senior course with language and literacy embedded into all subjects. I also saw that the teachers in these remote schools were almost all young, inexperienced and completely thrown by the fact that the students spoke English only as a second language or dialect. Most appointments were brief and often unsatisfactory for teacher and students. I suggested that a junior English course needed to be written to support and scaffold this ever changing parade of teachers to achieve better language and literacy outcomes for their students. I wrote this course based on a language development model, and implemented it in all Aboriginal and Torres Strait Island Community Schools. This involved being an advisory teacher and Education officer for the Queensland department for some years, where I developed an interest in teacher training and professional development.

While working in remote communities, a teacher with an interest in social issues may quickly find they are used as a resource, so I spent a lot of time as an unpaid adult literacy activist assisting people with letters, forms, further study, job applications and other extra curricular activities. This fostered an interest in adult literacy issues which continues now.

When my partner's job brought us to NSW at the beginning of the nineties, I tried teaching within the NSW department at Kyogle High School. I found it a culture shock for many reasons so looked for other career opportunities. Then followed a period working as an adult literacy practitioner with Skillshare, followed by Adult Community Education (ACE) for many years. Here again I worked with Aboriginal people, school system 'failures' and the unemployed - all examples of people who did not fit into the educational system for many reasons and all having vocational aspirations which they found very difficult to fulfil.

Starting at Charles Sturt University as a VET lecturer in August 1999 and reviewing my career lead me to identifying the following themes:

- Students with language, literacy, social issues which bar them from effective and full participation in the current systems of education and training
- Senior secondary schooling opportunities and pathways for vocational success - so they are not forced to approach an adult literacy teacher with tales of negativity and frustration and feelings of being relegated to a social scrap pile
- Teacher training and professional development - especially in light of the fact that most teachers come from a history of successful academic achievement and social conformity and find it difficult to understand those whose background is so very dissimilar from their own

PROJECT DESCRIPTION

Now that the passions and ideas had been identified, I considered how to proceed. Our research group, Group for Research in Education and Training (GREAT) offers small grants for pilot projects, but before applying, I thought it would be advisable to take an apprentice role with a more experienced researcher. Doctor Colin Boylan and I submitted a successful application to GREAT and we are anticipating our first meeting next week.

PILOT PROJECT SUMMARY

With increased participation rates over the last five years, more students in senior high school are representative of the lower achievement band. Changes in curriculum to recognise the students who are not bound for tertiary studies have included increased provision of vocational education.

The major aim of the study is to document the perceived issues and differing perspectives of the stakeholders involved in VET in schools. These stakeholders include secondary students, VET teachers and other teachers, parents, employer groups, educational authorities and the Aboriginal Education Consultative Group. (AECG)

The data will be collected using semi-structured interviews with focus groups representing each of the stakeholder categories. This process will be supplemented by individual interviews with a representative sample drawn from the participants.

The anticipated major outcomes from this study will be to:

- document the stakeholders' perspectives about their experiences of VET in schools
- generate a set of shared emerging issues in VET in schools
- identify where differences exist between stakeholder groups
- analyse the findings to develop a diagnostic tool which characterises elements of successful VET programs in schools.

It is anticipated that this research will lead to a journal publication, as well as providing a gateway to further research on VET in schools.

The report from the Dusseldorp Skills Forum discussing early school leavers indicates that these young people are most at risk in the current economic climate of suffering social and economic disadvantage. (NATSEM, 1999) This paper formed a different question in my mind: "But what advantages are gained by those who stay, particularly when considering the low achievers and traditionally early school leavers who remain at school under a scheme that a South Australian colleague recently characterised as 'learn for the dole'?" Does VET in Schools provide them with more satisfactory educational and vocational experiences and outcomes? In my focus on VET in schools I am particularly interested in the academic and vocational divide in the senior school system. This extrapolates out for me into areas such as support - eg professional development for teachers and context specific literacy numeracy support for students. Students whose voices interest me in this research include Aboriginal students, students with non-academic aspirations, students with literacy issues, the economically and socially disadvantaged and rural students. I am also interested in standpoints of other stakeholders such as parents, the community and employers. I want to look at the issues from a different perspective - ie - instead of 'supporting' reluctant or at risk students through an alien system which has not served them well historically, take their standpoint to examine the potential changes the VET in schools move could provide to make the school experience more meaningful and vocationally worthwhile for these students through year 11 and 12 and beyond. In a recent study which examined schools students, including many Aboriginal students, using resistance theory, the authors premised that '...it would be expected that resistance to school is generated among groups who historically are socially disadvantaged.' (Munns & McFadden, 2000, p63). All these factors keep reminding me that surely it is time to look at changing the systems rather than continually trying to support and offer piecemeal alternatives to make students fit a system which does not meet their needs.

RESEARCH QUESTION CRITIQUE

When devising this paper and attempting to explain the journey, I constantly envisioned clashes I had experienced with traditional school systems and the dominant forces within and driving them. These are characterised as virtually beyond critique in terms of structure, history and social conformity. Nothing is able to interfere with their continuance, although minor changes may be effected in peripheral ways. In his introduction to Chomsky's 'Profit before people', McChesney asserts that nothing is allowed to interfere with market driven economies. 'At their most eloquent, proponents of neoliberalism sound as if they are doing poor people, the environment and everybody else a tremendous service as they enact policies on behalf of the wealthy few.' (McChesney, 1998, p8) In a similar way, in senior schooling students who are not the intellectual, social or vocational elite often do not fit into a school system designed for, driven by and managed within a narrow social construct favouring the economically and politically viable.

In this section, I would like some participation in this project. The lines between the pilot study and the larger Ph D research are already becoming blurred and much time needs to be taken subduing the researcher's panic that she is too old to be starting a new learning journey.

AIMS OF THE PILOT PROJECT

The pilot project provides an opportunity to research and examine two shifts in secondary school education in NSW, in particular, the inclusion of VET courses in the HSC for the first time in NSW in 2000. The second is the increased retention of students from the lower achievement bands in the senior school.

School-based VET courses are based on industry standards specified by the Australian Qualifications Framework. (AQF) These courses have been developed and endorsed by industry within a competency based framework, where the emphasis is on individual outcomes aligned with industry specific standards, so that outcomes are measured against these standards rather than against the performance of other students.

The teachers of these VET courses must have an industry background. These teachers not only come from a different teaching / training tradition but also must be able to assess individual student performances against industry standards. Consequently, they provide further new voices in secondary education. Collectively, these changes reflect several major paradigm shifts in senior schooling. These include a change from traditional academic and assessment practices to a competency based model of assessment. Another change focuses on the culture, teaching mores and backgrounds of the high school teacher and the VET teacher. Also, in the VET model, students can use school-based learning in a direct way to build their industry-based credentials, which articulate with further vocational education and training programs.

This study involves gathering information from the voices of the various stakeholders in VET in schools. These stakeholders include secondary students, VET teachers and other teachers, parents, employer groups, educational authorities and the Aboriginal Education Consultative Group. (AECG) In particular, there are a number of secondary students for whom the traditional curriculum is not rewarding. In this study, one of the specific stakeholder groups will include students who might have been expected to leave during Year 11 who are staying on because of their studies in vocational education.

The aims of this study are:

- to identify and document a range of perspectives held by the stakeholders on the experience of being involved in VET in schools.
- to identify the range of issues emerging from each of the stakeholder groups.
- to develop a diagnostic tool to identify elements of best practice in VET programs in schools.

Examining the aims of the pilot project and some of the issues I have raised so far, I invite some comments to assist me in refining and clarifying my questions. More experienced researchers may like to pose new or alternative questions, or offer a critique of the process so far.

METHODOLOGY

First of all I will check who has the solution to the story about the crow. I chose this story as the crow needed a method to achieve his purpose. By using his brains, and the appropriate methodology, the crow was refreshed. I have been learning about research methodology from a variety of sources and I have discovered two main viewpoints, which can operate simultaneously:

1. Research methodology is an arcane and treacherous area full of traps for the novice and requiring years of study, debate and the swearing of allegiance to a research 'camp'.
2. Research methodology provides tools which can ensure that the researcher, who chooses wisely, can find out the answers to questions posed and these answers will be SMART (Specific, Measurable, Attainable, Relevant and Timely - fitting in with time restraints.) (Bowmer,1997)

Some of the strategies I am adopting to surmount the barrier and fear induced by option one, as I am naturally going for option two, include building and using the networks, both 'natural' and virtual from my previous work history; joining forums such as the Youth Forum to hear other voices and perspectives; seeking mentors who do not see methodology as a barrier to participation in research; linking research with my teaching, which I am able to do with two new VET in schools subjects I am teaching this year; investigating methodologies used by others at Conferences - vital for eliminating undesirable approaches; taking advantage of learning opportunities such as the ACSPRI summer school and the CSU Research Colloquium. 'Learn as you need to' has been a precept guiding my life and can be applied here, so starting on a pilot study with achievable goals and straight forward methodology builds confidence and knowledge to link with future endeavours.

The methodology I am considering for the doctoral study is from the social constructivist paradigm and focuses on conversation, which I am terming voices. I was intrigued by Engestrom 's theory of 'abundant learning', (Engestrom 1999) which has its grounding in Activity Theory and the work of Vygotsky (1978). This theory characterises learning as complex interactions, often non linear and subject to all sorts of outside pressures, which is particularly relevant in VET. "Standard theories of learning are focussed on processes where a subject (traditionally an individual, more recently possibly also an organisation) acquires some identifiable knowledge or skills in such a way that a corresponding, relatively lasting change in the behaviour of the acquired is itself stable and reasonably well defined. There is a competent 'teacher' who knows what is to be learned. The problem is that much of the most intriguing kinds of learning in work organisations violates this presupposition. People and organisations are all the time learning something that is not stable, not even defined or understood ahead of time. In important transformations of our personal lives and organisational; practices, we must learn new forms of activity which are not yet there. Standard learning theories have little to offer if one wants to understand these processes. " (Engestrom 1999 p 6.) Engstrom's use of a matrix translates for me into a mosaic, where the 'voices' converge to create a clear and new picture of the issues in VET in schools.

CONCLUSION

Many VET researchers are looking at changing workplaces, and I believe this also implicates changing schools if VET in schools is to be a successful bridge between school and the workplace. In my recent reading of Chomsky's 'Profit over people' (1999), I could draw parallels between the school system, particularly for those students who do not fit, and Chomsky's 'neoliberals', where the advance of a minority calls for the sacrifice of many minorities. Even though Chomsky is discussing global economics and political structures, the analogy is not difficult to see. 'Freedom without opportunity is a devil's gift, and the refusal to provide such opportunities is criminal'. (Chomsky, 1999, p.91) Is the opportunity offered by VET in schools a real opportunity, providing satisfying educational experiences and vocational pathways for students from the lower bands of senior school? Can the current model of schooling be altered to include, entice and benefit the 'outsiders' or is there a need for more fundamental changes, both economic and educational? These are very big questions, but I believe the journey to a Ph D may prove worthwhile is some parts of the answer are revealed by my research.

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Work as paid employment: what is changing and why? — An Australian perspective

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ABSTRACT

In 1999 the Australian Centre for Industrial Relations Research and Training (ACIRRT) published a text that summarised their major research findings that dealt with the changing nature of paid employment for the workforce in Australia. The Centre argues against the neo-capitalist/neo-liberal stances that embrace free market principles. This paper presents a framework to guide peoples' thinking of changes to 'work' (as paid employment) using recent ideological concepts, such as managerialism, economic rationalism, human capital theory and neo-corporatism. Is there a shift away from the infusion of these concepts into VET/Life Long Learning policy and practice within Australia? A brief exploration of these concepts provides a means of raising some understanding of why work is changing and why in Australia. The paper concludes by posing issues that have implications for VET / Life long Learning policy and practice.

SITUATING MYSELF

I am a lecturer in the newly established Centre for Human Resource Development and Training at the University of Melbourne, and a Ph. D. research student. The cohort I have the pleasure of working with are mature age learners who are searching for understanding about their corporate lives. After four and a half years of researching workplace change my findings and those posed by ACIRRT have not shifted my concerns about the changing nature of work, as paid employment.

RATIONALE FOR CHANGE?

Commonly, a single explanation - 'globalisation' - is cited as the cause for workplace change in Australia. . However, change discourses that provide some insight into workplace change are many and complex, among these being:

- The introduction of new workplace cultures
- The introduction of new workplace methods
- Rapidly changing technologies
- The acceptance of global marketplaces
- The intensification of competition
- The intensification of workplace expectations
- The desire to increase productivity

Behind these discourses are others that could be framed as either economic and/or political. Surprisingly to many, the former Federal Labour government in the 1980's commenced micro-economic reform. Confusions reigned for the constituents in many electorates as organisations 'downsized'/'right-sized'. The deregulation of financial institutions was supported in an attempt to free up the level of competition. Workplaces became environments for reform as new arrangements for the organisation of labour were established, the roles of management shifted from supervisor/controller to that of collaborator. Workplaces were to become team-based environments where a spirit of new found responsibility and flexibility was to be encouraged.

The role of government was to change. The idea of governments owning utilities and providing of a host of services to the community was under scrutiny. Neo-Corporatism / Federal Corporatism became a strategy to ensure governments could attest to reform that resulted in greater efficiency and public accountability. By the latter comments I mean Federal and State governments emulated the private sector and adopted the language of business as a means of changing the perceived image of services offered by government to the community forever. We now speak of the education business. Our academies have clients; they are no longer students. Teachers and lecturers are also consultants that generate income for the academy.

The Australian community had to realise that this was . . .

> . . . the end of certainty, society was now divided between the reformers and the traditionalists . . . Australia's record of poor productivity . . . over-reliance upon raw material exports . . . inadequate savings by the Australian community . . . the present standards of living / workplace practices being unsustainable . . . (Kelly. P, 1994, p.2).

Focusing upon productivity for a moment, Australia has been described as an economy with declining levels of productivity since the late 1970's. Australia is still subject to much criticism, (from government and employer groups in particular), in regard to its level of productivity and questionable ability to acquire a place in the emerging competitive global market place (ACIRRT, 1999). The declining productivity argument has also been used as a strategy to secure support from governments, organisations and the wider community for workplace restructuring and reform.

There is an inextricable relationship between productivity and consumption. Since the 1980's the level of consumption has been declining in Australia due to the market being saturated with consumables (ACIRRT, et al, p.18). Increasing the levels of productivity, through workplace reform, has resulted in workplace intensification and the displacement of approximately one million Australian workers. The Australian community now consists of people who wish to work far less, because they working longer than recorded ABS labour market statistics. People who are under-employed who wish to work longer hours because they cannot sustain an adequate standard of living, and the dispossessed unemployed that have stabilised at around 8% of the labour market. However, there are the consenting 'overworked' and those who are 'conscripted' into overworking. The former tend to be managerial people who thrive on workplace reform, the latter express discontent about an imbalance between working in paid employment and 'living' in general (AWIRS, 1995). These divides have resulted in a community that is unsettled and insecure.

...there is no great secret to solving unemployment...you simply lower the wages...Europe has unemployment running at around 12%...they have high wages and salaries...America has an unemployment figure of around 5% and declining...we have people who are paid $5.00 (US) and hour... (Reich, 1995).[1]

CHARACTERISTICS OF THE AUSTRALIAN WORKFORCE

Briefly, Australia's workforce is now characterised as casualised. Next to Spain, Australia has the greatest number of people who are employed in a temporary or casual manner - increasing dramatically between 1983 and 1994 (OECD, 1996, p.8). The number and gender of people who have been retrenched between the years 1986 and 1997 are in the hundreds of thousands:

- 1991, 400,000 white collar professional women and 280,000 white collar professional men. More than 350,000 blue-collar women and 249,000 blue-collar men were retrenched (Cleary, P. 1997, p.7).

Employment has grown most dramatically in the retail, property/business services, health and community services and hospitality industries. The sectors that experienced the greatest level of job loss were manufacturing, the utilities rail transport and insurance corporations (ABS, 1978-1998a).

Close to 65% of management workers have embraced work intensification and workplace reformation, whilst around 80% of non-management workers do not support many of the workplace reforms put in place since the 1980's. The same percentage (80%) of non-management workers are experiencing a dramatic increase in stress within their workplace, whilst around 57% of management workers commented on an increased level in workplace stress (AWIRS, 1995 p.36).

Between 1976 and 1997 the gap between profit and wage index / adjustments increased dramatically, with 1991 and 1997 stated as the years with the widest gaps. This trend is continuing (ABS, 1998b). From 1986 - 1996 real wages growth for low paid males has decreased by 5% whilst the median to highly paid has increased between 2.5% and 9% respectively.

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[1] Reich was the former economic adviser to President Clinton. These words were extracted from an interview given / recorded in 1995. Title of videotape: 'Cuts That Work', broadcast on the ABC Late-line program.

For women real wages growth for the low paid has increased by around 15%, and for median to highly paid - increased between 10% and 12% respectively (OECD, 1996). For many women this increase meant a catch up in wages/salaries. However, overall the gap between the highly paid and the low paid is widening. Women are taking up employment at a faster rate than men are but the work obtained is usually casual or temporary and low in wages/salary.

The social costs to the community associated with some of these shifts are great. Uncertainty does not go well with high levels of morale in the workplace. Fear leads to higher levels of stress and workplace behaviours that demonstrate unhealthy levels of individualism and competition - the antithesis of collaboration and team-based cultures advocated by many contemporary workplace reformists.

A FRAMEWORK TO HELP EXPLAIN WHY

Why are some of these changes occurring and how might some of these shifts be analysed and explained? The facilitation of vocational education in communities is shaped by political and economic imperatives. The communities I write of here are workplaces, schools, TAFE Institutes, Higher Educational facilities and private providers. Each of these micro-worlds are affected by 'systems' created at the macro level, systems that are shaped by interpretations of political and economic policy imperatives. For these reasons it would be prudent to include constructs that incorporate elements of political ideology and economics to guide our analysis of workplace change.

Fig. 1. Framework to guide analysis

Classical Economics/Neo-Liberalism

Keynesian perspectives

Economic Rationalism/Instrumentalism

Corporatism

Managerialism

Human Capital Theory/Life-Long Learning

The framework depicted in Fig 1. will be used to provide one explanation as to why Australia's workforce is changing. What follows is a brief explanation of the constructs used in the framework interwove with how these relate to some of the shifts in workplace practice.

Classical economics

Classical economists broadly hold the view that significant government intervention would artificially alter the market forces at play in an economy and therefore perhaps prolong the effects of an economic adjustment. Their views highlight the importance of smaller government and less government intervention in communities - to ensure market forces drive the shaping of the workings of an economy. Market forces, they assert, settle things out and drive an economy in a more dynamic, responsive manner. For example, in general they would not support the use of industry tariffs and the use of a high proportion of government revenue for citizen welfare payments.

Keynesian perspectives

Keynesian economics does not support the classical stance on free market imperatives. Governments may, at times, need to intervene in the workings of an economy to ensure equity and effectiveness. These 'times' may be during a period of economic malaise, when a nation's citizens may be suffering hardship, when industry requires a modicum of protection - for example, establishing a new industry in an economy through a taxation break/relief. The economist Keynes saw a need for governments to intervene in the workings of economies as a stabilising force, to moderate forces that may adversely affect a nation's citizens, and consequently a nation's wealth.

Neo-Liberalism/Neo-Capitalism

The current trajectory underway in Australia is an enhanced form of classical economics often referred to as neo-liberalism or neo-capitalism. The 'neo' refers to an even greater reliance upon market forces to drive the economy and communities to ensure an acceleration in the dependence upon free market practices. These encompass free labour market practices including deregulation of the labour market.

Economic rationalism/instrumentalism is often associated with the notions of efficiency, higher levels of productivity, a concern for competition and less government intervention/regulation. The view is that society can be made to proceed according to a formula (Oakeshott, 1991). The word rational implies a sense of logic of scientific, instrumental accuracy. Pusey (1991), characterises economic rationalism in the following manner:

Welfare spending is too great
Higher levels of unemployment are acceptable
Public Sectors should be deregulated
Wages and salaries are too high
National income should be re-distributed from wage earners to the wealthy
Public spending should be cut
The burden of taxation should be moved from business inputs to consumption goods (a GST ?)

The 'rationality' behind such statements is that business needs freedom to stimulate economies to create national wealth and employment. The 'rationality' is congruent with Classical / neo- liberalist models of economy associated with smaller government, less regulation and the use of market forces to shape economic endeavours. Market forces shape consumption via the user having to pay ' market rates' for services/goods. Ie. The costs of goods and services are determined by whatever the market can bear. The focus is upon the efficient delivery of those goods and services not the social value or social consequences of delivering the goods/services at 'market rates'

Economic Rationalism/Instrumentalism

The notion of instrumentalism is linked with 'rational' actions perceived to deliver a particular set of outcomes. The desired ends (greater student throughput?) and the means (introduction of training packages?) are calculated in a 'rational', scientific logical manner. One problem is, what may seem 'rational' to some may seem totally 'irrational' to others! The emphasis of instrumentalism is upon the technical merits of the rationality not the social consequences.

Economic rationalism and instrumentalism are perceived to be a viable means of action when there are:

High levels of unemployment
Low economic activity
Questions raised about the quality, outcomes and direction of education and;
A change in government policy direction and role are warranted.

The shaping of educational policies began to be influenced by this concept in 1988 by John Dawkins Federal Australian Labour Party. In his document entitled 'Strengthening Australian Schools' we begin to see the emergence of another phenomenon - Corporatism

Corporatism

Broadly speaking, corporatism may be defined as Co-operative arrangements between industry, governments, and staff associations/unions in the formulation of policy initiatives and policy directions. The Finn review (a review of Post-Compulsory education in Australia) was undertaken by a committee consisting of two representatives from the VET sector, a representative from business, another from the trade union movement, a Commonwealth nominee, two State and territory education representatives, and the Chair, Brian Finn, being selected by the then Australian Education Council committee. The intent was to ensure that decisions made about vocational education policy were in the Nation's interest and would be in keeping with Federal and State government initiatives. This intent was further enhanced by a desire by Federal governments to restructure processes (in this instance Vocational Education) - to again serve the nation's interest.

This we could label Federal Corporatism. Economic rationalism/instrumentalism, classical economics and neo-liberalism underpin corporatism, as a construct and practice (Lingard, 1991).

Managerialism/Human Capital Theory

This leaves us with the final two constructs from the framework depicted in Fig.1 on page four (4). Managerialism and human capital theory. Managerialism concerns itself with relationships of power and control in organisations. The views, styles and processes used by management are selectively chosen to realise results. Managerialism is focused upon results, which are of far greater importance than the means of 'getting the results'. Efficiency is paramount as is output of organisational efforts. Two key attributes one could ascribe to managerialism are:

> Private sector practices may equally be applied to public service sectors of an economy and, any problem can be resolved through efficient management practices... (Rees, S. and Rodley, G. 1995).

Vocational Education and Training policies have become a major force that have aligned themselves with a number of Federal and State government's economic rationalist and social imperatives (OTFE 1998). Many of these policies have been implemented in a host of VET settings in a managerialist manner. Further to this, most VET initiatives are being implemented in a corporatist / managerialist manner. By this I mean the Federal government is encouraging the interpretation / implementation, and creation of VET policy initiatives through establishing decentralised groups consisting of industry, government, and other interested parties. Industry is the 'main driver' of policy initiatives (OTFE, 1998).

A major premise of Human Capital Theory is: "...each person as having a stock of human capital...the acquired skills, knowledge and experience which enable them to perform more less effectively in the workplace...education and training are seen as building an individual's stock of human capital..." (OTFE, 1998 p. 1).

EDUCATION AND TRAINING?

The focus for education - especially vocational education - is the preparation of people for work (occupational paid employment). Therefore, major activities for vocational educational practitioners should centre on the acquisition of skills; knowledge and appropriate traits that prepare people to become productive workers. This is one assumption. A second consideration could be that learners experience few hurdles in accessing education and training. Another is that education is about preparing people for work and not life. Finally, that vocation is the same as job or occupation. I suggest that the word *vocation* is used in a very narrow sense. Vocation should be one's chosen direction in life - part of which is an occupation or a number of occupations over one's life. The word *vocation* is not the same as *occupation*. However, it is being used as such in many instances that align themselves with a newer interpretation of vocational education that advocates a form of human capital theory.

Human capital theory also asserts that a nation's wealth is realised through individual growth via continual education, training and the acquisition of skills / attributes in a life-long learning manner. The acquisition of these things enables people to 'onsell' their labour to others. This in turn means people acquire a level of social mobility. To explain a little further, by people adding to their level of human capital they may move socio-economically speaking or they may move across geographic boundaries (an issue of growing importance in a potentially global labour market place). This affords people a modicum of control over their lives - their chosen direction in life - their vocation. This idea is summarised concisely by Cohn and Geske, 1990, p.34 "...human capital approach makes an individual more valuable...more mobile...a highly capable worker will have a wider spectrum of potential employment opportunities..."

Many policy initiatives associated with VET are perhaps not 'vocational' in orientation they are 'occupationally' specific. Are 'Training Packages' an example of vocational education or are they form of *occupationalism*? By raising this question I am asserting that 'packages' focus upon particular forms of *deliverables*. These *deliverables* are generally specified by industry to serve particular industry definitions of occupation. Will vocational learners achieve a heightened standard of social mobility in line with human capital theory or will their skills be delimited to utilitarian applications relative to particular industry settings?

CONCLUSION

The working lives of Australians have changed dramatically. The social costs are still being determined. The importance of vocational education cannot be underestimated in the pursuit of 'staying in the workforce' - or as I heard it being expressed once as *'skiing the avalanche and staying on top of the avalanche'*. Those that have been displaced from the nation's workforce have suffered, demonstrated resilience and have sought innovative ways of eking out a living. Their experiences have been a very rocky means of realising an entrance into the school of life-Long learning. The economic, political and ideological stances adopted by governments, (and outlined briefly in my framework), of many persuasions have witnessed the unprecedented adoption of economic rationalism / instrumentalism and neo-liberalist reform of workplace communities. Many of these practices being implemented in a highly managerialist manner.

> ...education is a human enterprise that cannot be brought under any economic laws of supply and demand and cannot be conducted on business principles... West, R *The Age*, p. 3. May 28th, 1998.

A VET RESEARCH AGENDA?

May I suggest to those interested in researching vocational education and training (VET) that research is required to respond to:

- The effects of recent neo-liberalist policy initiatives upon the quality of vocational education?
- How one prepares people to enter a world of life-long learning?
- The incongruence between the rhetoric and the practice found in the new world of work
- Vocationalism or occupationalism? - As the trajectory for vocational education and training.
- Employability and the availability of work as paid employment for early leavers / non-tertiary education achievers.

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Trying to hit a moving target: a study of perspectives and practices in VET staff development

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INTRODUCTION

Teachers and trainers employed in the vocational education and training (VET) sector have been subjected to unparalleled change in the last ten years. Substantial reforms have taken place in the sector, all of which have had a dramatic impact on the nature of teachers' and trainers' work. VET teachers/trainers are now working in a system that is characterised by increasing competition between providers, calls for greater accountability and the need to develop cooperative and flexible responses to their clients.

Tight economic conditions, government rationalist policies and a changing labour market have altered the role of the VET teachers/trainers dramatically. One recent report boldly pronounces it "a paradigm shift ... in the profile of the TAFE teacher's professional relationship with the TAFE enterprise" (OTFE 1997, Vol 1:6). The most influential factors in this change arguably have been the emphasis on competency-based training and assessment, the introduction of an open training market, and the national focus on demand rather than supply. Collectively, these factors have fundamentally transformed VET's orientation from education to business and service, and shifted the VET teacher from teaching and creating curriculum more towards entrepreneurial brokering and delivery of prescribed competencies.

In this context, then, staff development today assumes a significance greater than it has ever had before. Many reports pontificate about the need for VET staff development to assist teachers/trainers cope with change and their own rapidly shifting role. However, it is no easy task. The notion of staff development is itself undergoing fundamental transformation.

This paper is based on research conducted as part of a NREC-funded, national study exploring staff development activities and modes of employment in VET public and private providers. The paper reports descriptively on the results of one component of the study, namely, the expectations of RTOs for their staff to hold or complete formal qualifications and the activities of the teachers/trainers in this area. The data are reported from two perspectives — one from the Registered Training Organisations (RTOs) and the second from the teachers and trainers.

BACKGROUND LITERATURE

The changing environment of VET has seen the number of private providers registered on the National Training Information Service database increase to over 3,000 across all states and territories. In addition, a number of enterprises are now involved in the delivery of VET across a range of industries. It is now difficult to define their work in terms of the number of classes or the numbers of students with whom they may work over a given time period. In many instances teachers and trainers in VET are working part-time. Persons filling the role of teacher or trainer can have a range of qualifications (e.g. specific trade, human resource development/management) and are often working under a variety of non-teaching awards and conditions (ACCIRT 1998).

A small-scale qualitative study undertaken in 1997 (Mathers) examined the trends in employment for VET staff that reinforced the growing presence of 'non-standard' employment within the VET sector. Specifically, it was noted that:

- TAFE institutes generally are increasingly becoming reliant on casual and contract staff. According to data from the 1996 Australian Committee on Vocational Education and Training Statistics, only 58% of teaching hours were provided by full-time staff;

- Several state systems have experimented with or implemented 'assistant' teaching positions as one mechanism for providing a limited range of teaching tasks at a considerably reduced cost. These positions are usually part-time, offer a lower salary and require different levels of qualifications;
- Private training providers, in response to the emerging reforms, have also shown a preference for casual and contract employment as a key mechanism to facilitate quick responses to market conditions (p. 69); and
- There is increasing evidence of a separation between the management and delivery of training (p. 72).

The changing modes of employment undertaken by VET teachers and trainers raise a number of issues relating to the provision of staff development (both initial and on going) for staff. There is growing research evidence which suggests that part-time and casual employees are less likely to participate in training than other employees (Austen 1995; Wooden 1996; Curtain 1996). In addition, employers with a greater proportion of part-time or casual workers invest less in training activities than other employers (ABS, cited in ANTA 1998). There is a growing trend for responsibility for staff development to be devolved from central training units to the local area of work. This has in effect entailed a shift for professional development from the employer to the employee. No empirical evidence to date suggests that the VET sector might be operating in a manner counter to these trends.

Workforce trends for VET teachers and trainers increasingly emphasise the uncoupling of structured entry-level training for VET staff with participation in full-time employment. In the recent past, initial training consisted of a mix of industry specific skills and knowledge, training in a university and on-job experience, usually at a TAFE college. Alternative pathways to develop teachers' and trainers' skills have proliferated. Coupled with the rise in non-standard forms of employment within the sector, the issue of the most appropriate forms of staff development to meet both work-related and personal development needs of staff has become problematic.

THE RESEARCH PROCESS

The data on which this paper is based were obtained from two sources. Data for the RTOs were collected by means of a telephone interview survey of human resource personnel in 394 VET providers across Australia. Data from teachers and trainers were collected from a postal survey of teachers and trainers employed in 311 of the organisations responding to the telephone survey who agreed to distribute a questionnaire to small samples of their teachers /trainers.

THE SAMPLES

Registered Training Organisations

In the sample of 394 RTOs were 42% (n=167) commercial providers, 30% (n=117) community-based providers, 16% (n=62) enterprise-based providers and 12% (n=48) TAFE colleges/institutes. Fifty one percent (n=200) were reported to be single site organisations, the remainder multi-site. Only 6% (n=3) of the 48 TAFE institutions were single site, compared with 61% (n=100) of commercial, 59% (n=69) of community-based and 44% (n=26) of enterprise-based providers. The breakdown by state and territory is given in Table 1.

Table 1: Distribution of RTOs: type of VET provider by state/territory

	TAFE	Commercial provider	Community-based provider	Enterprise-based provider	Total
South Australia	6	17	9	6	38
Victoria	12	29	37	15	93
New South Wales	4	32	25	15	76
Northern Territory	3	4	4	1	12
Western Australia	9	22	12	8	51
Queensland	13	47	22	15	97
Tasmania	1	7	5	2	15
Australian Capital Territory	0	9	3	0	12
TOTAL	48	167	117	62	394

Figure 1 presents the proportions of training providers offering various levels of qualifications to clients. These data show that, at every level, higher proportions of public than private institutions provide these qualifications, particularly so at the level of Diploma and above.

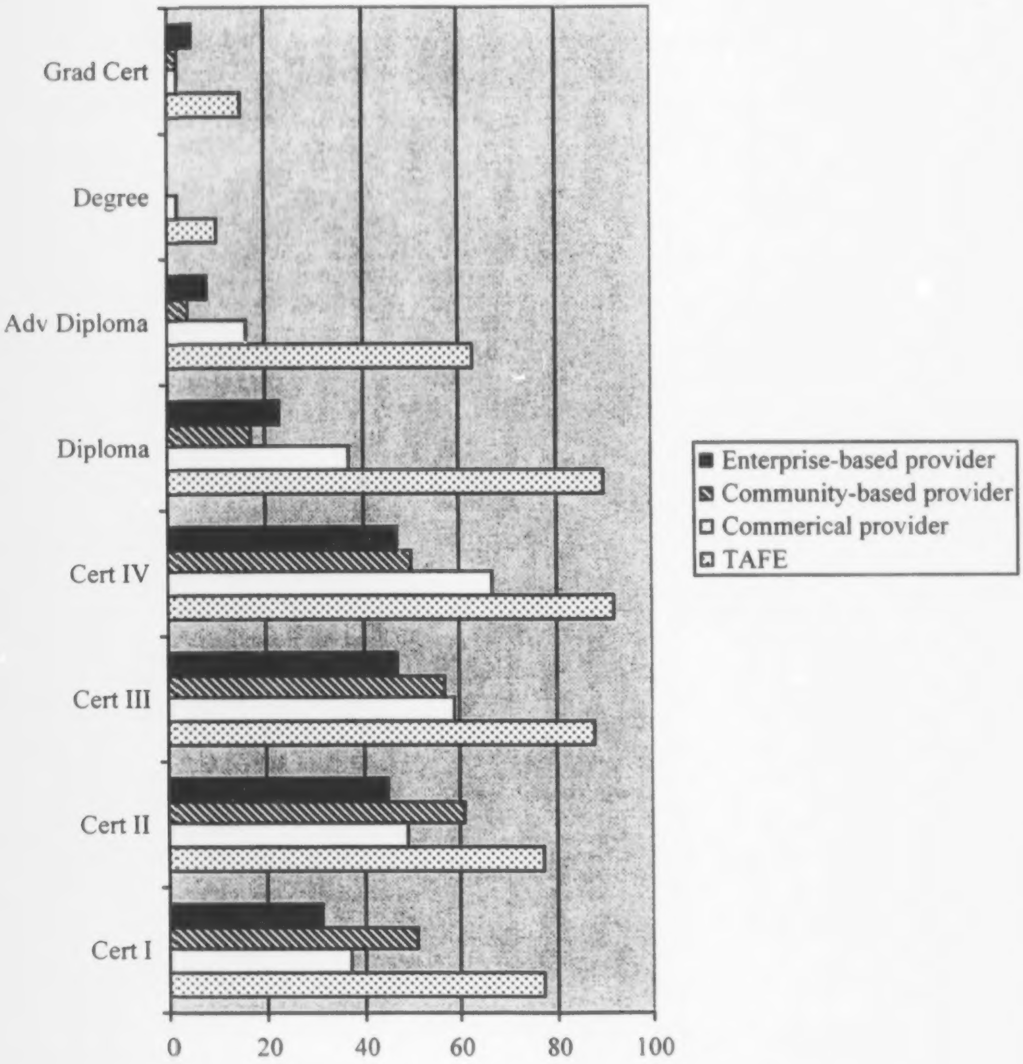

Figure 1: Type of qualifications offered x type of provider

TEACHERS/TRAINERS

The sample of teacher/trainers was fairly evenly divided in terms of gender (47% male, 53% female). Almost 53% (n= 361) were employed on a permanent basis with 23% (n = 159) employed on a contract basis, 20% (n = 135) on a casual/sessional basis and 4% working as self-employed contractors (n= 28).

Twenty seven percent of the sample had been employed by their current RTO for two years or less. Of this group, only one third had been employed in permanent positions. (n = 59). In contrast, over 80% of those teachers and trainers who had been working for their organisation for 11 or more years were employed in permanent positions.

Almost 55 % of the sample were employed in the TAFE system. Permanent staff represented the highest proportion of respondents across each type of provider (see Table 2).

Table 2: Mode of employment x type of RTO

Type of organisation that distributed questionnaire	**Permanent**		**Contract**		**Casual/ sessional**		**Self-employed contractor**			
	n	%	n	%	n	%	n	%	N	%
TAFE	190	51	112	30	69	19	2	1	373	101
Commercial provider of VET	39	54	7	10	16	22	10	14	72	100
Community –based provider of VET	63	47	27	20	37	27	8	6	135	100
Enterprise-based provider of VET	23	66	4	11	3	9	5	14	35	100
Other	43	69	7	11	10	16	2	3	62	99
Total	358	53	157	23	135	20	27	4	677	100

The predominant fields of study in which the teachers and trainers worked were business/administration (n=127), multi-field education (ESL, literacy, numeracy) (n=125), health/community services (n=103), computing (n=78), and service/hospitality (n=65). TAFE staff were concentrated more than private staff in architecture/ building (7% cf. 3%), surveying/ engineering (10% cf. 4%), hospitality/service (12% cf. 7%) and arts/humanities/social sciences (12% cf. 5%). Private staff were more involved than TAFE in the four areas of health/community services (21% cf. 12%), ESL/literacy/numeracy (21% cf. 17%), education (13% cf. 6%) and computing (15% cf. 10%).

A noticeable trend in the data is the shift in employment patterns in various educational fields across the years of service. In the case of the teachers/trainers appointed in the last two years, the appointments were most numerous in business/administration (20%), health/community services (16%), multi-field education (14%), computing (13%), service/hospitality (11%) and agriculture/horticulture (7%). Very small percentages of staff were appointed in the more 'traditional' areas such as architecture/ building (3.9%) and surveying/ engineering (2.8%). This contrasts with the figures for staff who have been working a long time in their organisations (for example, 21 years or more), where heavier numbers are concentrated in surveying/ engineering (25%) and architecture/ building (10%), and lesser numbers in computing (4%), service/hospitality (4%) and agriculture/horticulture (2%). Many of these more traditional fields of study are located in TAFE. This may have implications for the workforce as these more experienced teachers/trainers retire from the workforce in the near future. This issue can be further highlighted by data that show the large numbers of older staff who are employed on a permanent basis. The finding is consistent with those noted by Malley et al. in their study examining employment trends for the TAFE workforce in Victoria (1999).

RTO PERSPECTIVES ON QUALIFICATIONS REQUIRED FOR TEACHERS/TRAINERS

Seventy six percent (n=299) of the providers require teachers/trainers to have a minimum teaching/training qualification at the time of their appointment, and 42% (n=167) require them to complete teaching/training qualifications after they have commenced employment in their organization. There was a statistically significant difference in the approaches of public and private providers in their patterns of recruitment. While only 54% of TAFE institutions required a minimum teaching/training qualification at the time of appointment, as many as 81% of commercial, 79% of community and 73% of enterprise-based providers required this (X2 = 16.04, df = 3, p = .001). Conversely, the equivalent percentages of providers requiring these qualifications to be completed after appointment were 69% for TAFE, and 41%, 33% and 44% for the three types of private provider (X2 = 17.81, df = 3, p = .000).

Table 3 shows what qualifications are required by these providers for each of the employment modes, both at the time of appointment and following employment in the organisation.

Table 3
[See overleaf.]

Table 3: Minimum level of Teaching/Training Qualification required by providers for each employment mode, at time of appointment and, after commencing employment (n = 299 at time of appointment; n = 167 after appointment)

Type of qualification	Numbers of RTOs requiring a teaching/training qualification													
	for permanent staff				for contract staff				for casual/ sessional staff				for self-employed contractors	
	at appoint-ment		after appoint-ment		at appoint-ment		after appoint-ment		at appoint-ment		after appoint-ment		at appoint-ment	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
WPT Cat 1, Train S/Groups	38	13	13	8	32	11	12	7	36	12	17	10	23	8
WPT Cat 2, Certificate IV	138	46	80	48	108	36	55	33	107	36	53	32	71	24
Other train-the-trainer program	17	6	6	4	9	3	9	5	19	6	7	4	14	5
NTL	5	2	4	2	1	-	2	1	3	1	1	1	4	1
Workplace Assessor	14	5	10	6	11	4	11	7	15	5	1	7	13	4
Teaching qual. degree/diploma	60	20	23	14	35	12	19	11	24	8	15	9	18	6
Not applic/other	58	19	31	29	129	43	59	35	122	41	6	38	179	60

* Some providers gave more than one response within each employment mode

It is clear that the Certificate IV in workplace training has now become the minimum qualification for teaching/training in the VET sector. The requirement to have, or to obtain after appointment, a teaching diploma/degree is no longer the expectation in the majority of the organizations, even for permanent staff. It is also interesting that there is not a great difference in employer expectation across the various modes of employment - for example, even in the case of casual employees, still 107 (36%) and 24 8% organisations expect them to have, respectively, a Certificate IV and a teaching diploma/degree at time of appointment.

TEACHER/TRAINER PERSPECTIVES:

FORMAL QUALIFICATIONS ACQUIRED BEFORE AND AFTER EMPLOYMENT

Teachers and trainers were asked to provide details of the formal qualifications they held and when they had completed studying them. Respondents could provide details on up to five qualifications they had completed. These data are reported in Tables 4 and 5, firstly by the type of RTO they were currently employed by and secondly, by mode of employment.

Table 4
[See overleaf.]

Table 4: Formal qualifications acquired before and after employment x type of RTO

Qualification*	Employed in public RTO (n = 362)				Employed in private RTO (n = 297)			
	Acquired before		Acquired after		Acquired before		Acquired after	
	n	%	n	%	n	%	n	%
Certificate (other)	65	18	32	9	39	13	29	10
Advanced certificate	8	2	8	2	5	2	-	
Trade	57	16	2	1	15	5	2	1
Technician	1	-	-		-		-	
Diploma (other)	44	12	11	3	41	14	13	4
Associate diploma	20	6	4	1	13	4	3	1
Advanced diploma	4	1	1	-	3	1	2	1
Bachelors degree (other)	133	37	18	5	112	38	9	3
Postgraduate qualifications (other)	23	6	30	8	42	14	29	10
Workplace assessor certificate	4	1	33	9	8	3	31	10
Workplace Trainer Cat. 1	4	1	11	3	10	3	12	4
Certificate IV in Workplace Training	15	4	87	24	36	12	85	29
Bachelors degree (teaching, adult, voc. ed.)	4	1	24	7	4	1	7	2
B Ed	28	8	31	9	33	11	16	5
Teaching Diploma	30	8	43	12	36	12	13	4
Diploma of Education	36	10	16	4	19	6	3	1
Postgraduate qualification (teaching, adult, voc. ed.)	26	7	64	18	16	5	13	4
Teaching Certificate	9	3	8	2	7	2	2	1
Other formal qualifications	66	18	67	19	82	28	65	22

* Respondents could give more than one answer

Once significant trend to emerge from these data is that a large number of qualifications held by teachers and trainers prior to their employment in the VET sector relate to their discipline area (that is, non-teaching qualifications). Once employed, a large number of teachers/ trainers gain qualifications which further develop their teaching/training skills. However, teachers/trainers working in private RTOs were more likely to have a teaching/training qualification prior to employment (57% compared with 43%). This is in keeping with trend noted above from the RTO data in relation to the requirements of private RTOs for their newly appointed teachers/trainers already to have teaching/training qualifications prior to appointment.

Table 5 reinforces this trend. These data also show that larger numbers of contract, casual/sessional and self-employed contractors hold workplace trainer qualifications at the time of their appointment compared with permanent staff. Equally important, however, is the concentration on acquiring workplace trainer qualifications after appointment for all modes of employment. These data underscore the importance placed on these qualifications and hint at the compliance-driven nature of staff development activities to assist RTOs meet the requirements set out in previous curricula and current Training Packages.

Table 5 also highlights the apparent trend for permanent staff to continue to study formal qualifications after appointment and, in particular, to complete further study related to their teaching/training skills. This finding is further explained when data on the level of support that teachers/trainers receive from employers for staff development are examined.

Table 5
[See overleaf.]

Table 5: Formal qualifications acquired before and after employment x mode of employment

Qualification*	Permanent staff n=351				Contract staff n =153				Casual/sessional n=131				Self employed contractors, n=28			
	Acquired before		Acquired after		Acquired before		Acquired after		Acquired before		Acquired after		Acquired before		Acquired after	
Certificate (other)	48	14	42	12	23	15	8	5	28	21	10	8	7	25	-	
Advanced certificate	4	1	5	1	4	3	2	1	5	4	1	1			-	
Trade	48	14	3	1	13	9	1	1	10	8	-		1	4	-	
Technician	-		-		1	1	-		-		-		-		-	
Diploma (other)	35	10	14	4	20	13	6	4	22	17	2	2	8	29	2	7
Associate diploma	17	5	4	1	6	4	3	2	9	7	-		1	4	-	
Advanced diploma	3	1	1	-	3	2	-		1	1	2	2	-		-	
Bachelors degree (other)	131	37	16	5	64	42	5	3	39	30	6	5	10	36	1	4
Postgraduate qualifications (other)	36	10	37	11	9	6	7	5	12	9	9	7	8	29	4	14
Workplace assessor certificate	3	1	38	10.8	6	4	17	11	1	1	9	7	2	7	1	4
Workplace Trainer Cat. 1	3	1	6	2	4	3	10	7	5	4	6	5	2	7	1	4
Certificate IV in Workplace Training	18	5	94	27	18	12	45	29	14	11	28	21	1	4	9	32
Bachelors degree (teaching, adult, voc. ed.)	6	2	19	5	1	1	10	7	1	1	2	2	-		-	
B Ed	29	8	41	12	19	13	5	3	11	8	1	1	2	7	-	
Teaching Diploma	34	9.7	49	14	12	8	4	3	17	13	3	2	3	11	-	
Diploma of Education	35	10	15	4	16	11	4	3	4	3	-		-		-	
Postgraduate qualification (adult, voc. ed.)	19	5	57	16	17	11	13	9	6	5	5	4	-		2	7
Teaching Cert.	8	2	8	2	1	1	-		4	3	1	1	3	11	-	
Other formal qualifications	64	18	84	24	34	22	24	16	42	32	22	17	10	36	5	18

SUPPORT FOR STAFF DEVELOPMENT REPORTED BY RTOs

Table 6 presents the percentages of organisations reporting forms of support they provide for the various categories of teachers and trainers. It shows that financial support is most frequently available in the form of reimbursement for attendance/ registration costs and travel expenses in getting to staff development activities.

Table 6: Types and frequency of support currently provided by organisations for staff in different employment modes

Assistance with:	Permanent staff		Contract staff		Casual staff	
	always	s/times	always	s/times	always	s/times
fixed amount of paid time	23	30	10	14	7	11
HECS fees	10	20	2	8	3	7
cost of books/ materials	30	33	9	18	11	14
cost of attendance fees & registration fees	49	24	18	16	17	17
cost of travel to activities	44	24	15	16	14	17
other assistance	2	3	1	2	1	2

* Remaining percentages = 'Never', 'No' or 'Don't know'

The data also reveal that most support is afforded to permanent staff and that there is very little difference in the types and levels of support given to contract and casual staff.

SUPPORT FOR FORMAL QUALIFICATIONS REPORTED BY TEACHERS/TRAINERS

Forty six percent of the public (n=58) and 50% (n=43) of the private teachers/trainers who were studying formal qualifications at the time of the survey were receiving some form of support from their employer. This support came mainly in the form of assistance with HECS and other course fees (especially for those in TAFE, 49% compared with those in private RTOs, 28%), followed by assistance with costs of books/materials and paid leave from work. Other forms of support included accommodation and travel costs, encouragement, information sessions, support and mentoring, resources (such as a laptop computer and software), a scholarship and time to attend.

By employment mode, 53% (n=53) of permanent staff reported employer support, compared with 46% (n=33) of contract and 29% (n=14) of casual/sessional staff. This picture of differential support by employment mode corroborates that provided by the human resource personnel, as well as the findings of the Office of Training and Further Education in Victoria (OTFE 1998). However, financial support aside, analysis of their reported reasons for undertaking formal qualifications provides insight into their motivations for study.

REASONS FOR COMPLETING FORMAL QUALIFICATIONS

Teachers/trainers were asked to give their reasons for undertaking formal qualifications. Nine reasons were offered and respondents were asked to rank these in order of importance for themselves. Table 7 presents the ranking of these reasons by the mode of employment of the teacher/trainer.

Teachers/trainers employed on a contract or casual/sessional basis were more likely to view formal qualifications as an investment in their long-term career prospects. One assumes this to mean that these teachers/trainers were hopeful that investment in formal qualifications would lead to a permanent position some time in the future.

It is also interesting to note the different perspective on the value of formal qualifications offered by self-employed contractors. Formal qualifications for this group were viewed as a means for updating their industry knowledge and skills and as a means of maintaining their place in the job market. Undertaking formal qualifications to enhance long term career prospects was a far less important reason for this group.

These data reveal the importance placed by most teachers/trainers for staff development, particularly that which lead to formal qualifications, which will assist them in their career development. This is particularly important for teachers/trainers employed on a casual or contract basis.

Table 7: Teacher/trainer rankings of reasons for undertaking formal qualifications x mode of employment

Reason	Permanent	Contract	Casual/ sessional	Self-employed contractors
To acquire qualifications	Ranked 2	Ranked 2	Ranked 2	Ranked 3
To enhance qualifications already achieved	Ranked 1	Ranked 3	Ranked 3	Ranked 2
To keep up with current job	Ranked 5	Ranked 5	Ranked 6	Ranked 5
Requirement of employer	Ranked 8	Ranked 8	Ranked 7	Ranked 8
Update industry knowledge/skills	Ranked 4	Ranked 4	Ranked 4	Ranked 1
To increase job satisfaction	Ranked 6	Ranked 7	Ranked 5	Ranked 7
To get promotion in the short term	Ranked 9	Ranked 9	Ranked 9	Ranked 9
To assist long-term career prospects	Ranked 3	Ranked 1	Ranked 1	Ranked 6
To maintain place in the job market	Ranked 7	Ranked 6	Ranked 8	Ranked 4

CONCLUSIONS

This paper has reported on a subset of data from a survey of staff development practices in VET providers across Australia. It focused specifically on the expectations of RTOs for their VET staff to hold or complete formal qualifications and teachers'/ trainers' activities in this area.

The data presented in this paper have revealed quite different patterns in the approaches of public and private VET providers. One of the most important differences is in what is expected of teachers/trainers at the time of appointment. The private providers are far keener to recruit already qualified staff, while TAFE is more prepared to allow their staff to complete teaching/training qualifications following appointment.

It is also the case that TAFE institutions offer far more courses at all levels than private providers, especially at Diploma levels and above, reflecting their longer history in VET provision and their larger size. It might be argued that these higher level courses require teachers/trainers with more detailed and ongoing staff development than lower level courses. It is clear, however, that the

Certificate IV in assessment and workplace training has become the minimum qualification for teaching/training in VET. This will increasingly be reinforced by the common stipulation within Training Packages for this level of qualification and by the finding in this study (though not reported here, see Harris & Simons 1999) that decisions about VET staff development tend to be influenced more by policy imperatives such as RTO registration requirements than by more traditional arrangements such as industrial relations agreements or career plans.

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"There are workplace trainers and then there are workplace trainers": Reconceptualising their role as workers and trainers

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INTRODUCTION

Policy makers and governments, as part of the implementation of training reform, recognised the importance of ensuring that learners in workplaces should have access to, and support from, suitably qualified workplace trainers. One of the first sets of competency standards to be developed in the early days of training reform was for workplace trainers (CSB-Assessor and Workplace Trainers 1994). Since that time, the role of the workplace trainer, although central to issues relating to the quality of vocational education and training (VET), have received scant attention. This is particularly true for those people who train others in the workplace in a manner which is largely informal and undertaken as part of the work routine in an enterprise rather than as part of more formalised training either within or away from the work site.

Previous research on the integration of on and off-job training in the housing industry found that apprentices desired different skills for their workplace trainers than they were able or willing to provide (Harris et al. 1997). A recent study has drawn attention to the pervasiveness of informal learning in the workplace and the important role played by workers in fostering the learning of their work colleagues (Harris and Simons 1999). This has raised some significant questions with regard to the role of the workplace trainer and how that role might be conceptualised.

In the light of the above mentioned research, this paper commences with a critique of the current conception of the role of workplace trainer as presented in the Training Package for Assessment and Workplace Training. Distinctions are drawn between different types of workplace trainers. Using network learning theory (Van der Krogt 1998, Poell et al. 1998) as a foundation, a model highlighting how workplace trainers act on and with the learning and work networks in their enterprises to facilitate learning is presented and discussed.

CURRENT CONCEPTION OF THE ROLE OF WORKPLACE TRAINER

The competency standards for assessors and workplace trainers are an official and public statement of the role of the workplace trainer. These standards describe the key functions of the role and place a boundary around its scope, effectively defining what is 'in' and what lies 'outside' the work of a trainer.

The purpose underpinning the development of the initial workplace trainer standards was essentially practical, focusing on assisting those responsible for hiring and training workplace trainers (Garrick and McDonald 1992). These standards have undergone further refinement and are now contained within the Training Package for Assessment and Workplace Training that was released early in 1999.

Both the earlier and current versions of the standards have been based upon a "skills deficit notion" of training that is more reminiscent of institutionalised approaches to skill formation (Garrick and McDonald 1992, 176). They appear to lack any real links with emerging ideas such as the learning organisation (Senge 1990, Bawden 1991) or the body of knowledge which emphasises learning embedded in daily work practices and occurring in an informal or incidental manner (Marsick, 1987; Marsick and Watkins 1990; Harris et al. 1998). We would contend that this is particularly so for those workers for whom the role of trainer forms only a portion of their overall work role. For these people the standards most relevant to their role first appeared as Workplace Trainer Category 1 competency standards earlier in the 1990s, and now have been refined and released (early in 1999) as a unit of competency, 'Train small groups', within the Training Package for Assessment and Workplace Training.

This unit conceptualises the workplace trainer's role as one where the trainer is 'in control' of training ('specific training needs are identified', 'training objectives are matched to identified competency development needs', 'practice opportunities are provided', 'readiness for assessment is monitored'). This is further underscored by the almost overwhelming emphasis on training rather than learning. That is, the unit assumes that the learning that results from training is predictable, explicit and has outcomes that can be determined in advance. Formalised on-site training is valued almost to the exclusion of informal and incidental learning processes. There is also an implicit assumption relating to power relations embedded in these standards - that the trainer knows best, has the legitimate authority and is the one with the 'right' knowledge and skill. A structure is imposed on the learning and the focus is clearly on individual workers/learners in isolation from their work environment and their work colleagues. The unit, "Train small groups", is also remarkable in that it bears distinct similarities with another unit within the Training Package that focuses on the competencies required to deliver training sessions as part of a training program. It therefore raises questions about the specific competencies that a workplace trainer, whose training role sits alongside his/her role as a worker, may need to develop.

It is acknowledged that the range of variables may allow space and the room to manoeuvre for some of the trainer actions identified in this research. However, interpretation is left to the individual trainer. The key point is that the raison d'etre for identifying and describing competency standards is to define what it is that workers (in this case, trainers) actually do in the workplace and to minimise the need for individual interpretation. Thus a set of competency standards that does not do this is no better than definitions of the role of workplace trainers that existed prior to the introduction of national competency standards. In a real sense, these competency standards seem to be a-contextual, framed in vacuo and devoid of the workplace. There is a need to put 'work' back into notions of the 'workplace trainer'. They may well be trainer competency standards, but they fall short of being 'workplace' trainer competency standards.

AN ALTERNATIVE PERSPECTIVE ON THE ROLE OF WORKPLACE TRAINER

Research recently completed as part of an NREC-funded project to examine the role of the workplace trainer provides evidence from which an alternative view of the role of workplace trainer may be constructed (Harris et al. 2000). This research involved observations and interviews in 18 enterprises where workplace trainers were facilitating learning with one or two employees/learners. The enterprises were in three industries: information technology, real estate, and building and construction, and spread across three Australian states: New South Wales, Victoria and South Australia. From this process, a number of key functions and "trainer actions" were identified. A telephone interview survey of workplace trainers in 350 enterprises across the same three states was then conducted so as to complement information from the first stage, particularly focusing on the trainer actions (full details of the research process and outcomes have been reported elsewhere - see Harris and Simons 1999).

From this research, it is possible to identify a number of functions that are central to the role of the workplace trainer. Within structured learning systems in enterprises, workplace trainers prepare for, deliver and review training using a range of competencies that are set out in the current workplace assessor and trainer competency standards. It is also clear that these standards only describe part of their role, particularly for those workplace trainers where training is only one small part of their overall work. Five other key functions of the workplace trainer role were identified in this research.

1. Fostering an environment conducive to learning

Trainers are very aware that the workplace environment plays a significant role in supporting learning and the importance of actively cultivating relationships with and between workers as a key component of their work. These relationships are evident in the communication systems that trainers build and maintain. Communication is the main vehicle for training and the primary mechanism through which an environment that supported and encouraged learning is maintained This form of communication is not often laced with 'training talk' (that is, talk about objectives, assessment, demonstrations and other concepts associated with more formal approaches to training).

Trainers also spend large amounts of time talking to workers. Discussions can take place at almost any time during the working day and in a variety of environments, such as the car on the way to and from various work sites at lunch time. These discussions form the basis of decisions about the type of work that the worker might undertake. They provide opportunities for trainers to understand the experience of work from the worker's perspective. Trainers use discussions to share how tasks might be done or what they would like workers to do. They open up opportunities for trainers and workers to explore alternative ways of tackling parts of a job or for the trainer to assist the worker in making connections between events and tasks in order to assist in transferring learning to new or novel situations.

2. Working and learning with co-workers

Many workplace trainers are not in positions where training forms the major part of their work. In most instances, the trainers work alongside the workers they are training. Alternatively, they work in jobs that have a supervisory component. The 'work worlds' of the trainer and the workers they are training are enmeshed and interact with each other and shape the teaching process trainers use. The ability of the trainers to interact with workers within this learning-work system is a critical component of their role.

Trainers share experiences such as attending events together, telling 'war stories' and working alongside workers. They network and build relationships with other workers and people external to the business or the section of the enterprise with which they are most immediately involved. These networks and contacts often provide help with issues or problems, or provide input about changes that could be made to work practices or other issues within the enterprise. These other workers or external people provide learning opportunities for all the workers connected with the business.

3. Structuring and shaping the work processes to accommodate learning

The work of many workplace trainers is enmeshed with their primary work roles within the enterprise. The *nature* and *structure* of the work within the enterprise is therefore a critical factor shaping the learning that takes place. The workflow, patterns and structure are the developmental pathway (that is, the curriculum) which the trainer uses. Trainers manipulate the flow, structure and content of work in order to assist those less experienced workers to learn as they work. They do this by:

- altering the pattern and pace of work to make space for learning
- making judgements about the balance between the work and learning needs
- monitoring the work flow and quality of work as learning and tasks proceed
- sequencing the order of work tasks to match the needs abilities of the workers
- reconciling the experience from on- and off-job learning environments

These activities assist the trainer to draw the learners they are working with into the patterns of work. They also help trainers to connect tasks in a manner that facilitates "getting the task done" alongside the task of helping others to "learn their job".

4. Promoting independence and self-direction in workers

As stated previously, many of the workplace trainers in this study had a number of responsibilities within their enterprises, apart from their training roles. It is therefore important that they encourage and foster independence and self-direction in the workers. Negotiating tasks, workloads and learning goals, as a prelude to organising work patterns and structures, is an important task for the trainers. In this way they can allow workers to proceed with the work and free up the trainer to attend to other issues.

5. Linking external learning experiences with work and learning in the workplace

Workplace trainers who work with external providers of training programs, particularly those that involve contracts of training, report that their role also involves liaison with these providers on a range of issues. Trainers also play an important role in supporting workers to integrate their learning from sites other than the workplace. This function can require a workplace trainer to speak with external providers to provide feedback, negotiate alternative assessment tasks or report progress against competencies achieved. In other circumstances, the workplace trainer can discuss what training the worker is undertaking outside of the workplace and look for opportunities where work practices might be modified to accommodate these learning experiences.

The additional functions identified in research provide support for the argument that the role of the workplace trainer is broader and more complex than might be suggested in descriptions embedded in documents such as the competency standards for assessors and workplace trainers. The data indicate that the role of the workplace trainer is shaped by the work of the particular enterprise and that the work of the trainer is embedded in the work of the enterprise. The work is the curriculum that the workplace trainer adopts and adapts to suit the needs of the workers.

It is also clear that there are significant differences between the worker-trainer and the provider-based trainer (and even the enterprise-based designated trainer). While there is an increasing press for provider-based staff (for example, TAFE teachers) to become more entrepreneurial and to 'get out into industry', there is a need to recognise that their role is different from that of a workplace trainer. The workplace-based trainer is enmeshed in both the work and the learning networks of the enterprise and these greatly influence both the nature of the role and degree to which the trainer can fulfil it. The trainer is also a worker. The provider-based trainer is not situated within an enterprise's work network and thus plays a different role. Simply put, the 'outsider' is in a different position from the 'insider', and therefore by necessity plays a different part in the theatre of training. There are advantages and disadvantages for both. For example, the outsider is considerably less affected by the possible constraints of intra-enterprise networks than the enterprise-based trainer. On the other hand, the outsider is also very likely to be less effective by virtue of more limited understanding of the structures, processes, relationships, values and so on, and therefore needs to spend more time and effort in enculturating himself/herself within the enterprise. The main point here is that the current national competency standards reflect a "one size fits all" approach that does not tune with the various types of trainer that exist.

TOWARDS A MODEL FOR UNDERSTANDING WORKPLACE TRAINERS AND THEIR WORK

Network learning theory offers new and valuable insights into understanding the relationships between learning and work within an enterprise. Network learning theory emphasises the dynamic and interrelated nature of the learning and work networks and the role that individuals play in creating and re-creating these networks over time. Drawing on this theory and the insights gained from the data collected in this study, a new understanding of the role of the workplace trainer who is based in an enterprise becomes possible.

Network learning theory (Van der Krogt *et al.* 1998, Poell *et al.* 1998) rests on a number of key ideas:

- Enterprises comprise a number of networks that correspond to the main functions they undertake. These networks are constantly being shaped and re-shaped by the people who work within the enterprise.
- In understanding learning in the workplace, two networks are of particular importance - the learning network and the work network. The work network evolves out of ways in which workers interact with policies, organise and work within the enterprise. Work networks are shaped by the type of work undertaken in the enterprise as well as the relationships between workers and the climate created by interactions of workers within the enterprise. The learning network is a result of workers acting on the structures (both formal and informal) and planning processes that have been established within the enterprise to support learning. What is learned, along with the relationships and the climate which is generated to support learning, all contribute to the 'shape' of the learning network.
- Different types of enterprises are characterised by different work and learning networks.

Within most enterprises, the overriding concern of workplace trainers and their colleagues is to "get the job done". Productivity and "core" business activities are of pre-eminent concern. This is especially important in small and micro businesses. As network learning theory highlights, this effectively means that the work network predominates, sometimes at the expense of the learning that might take place. Work shapes learning.

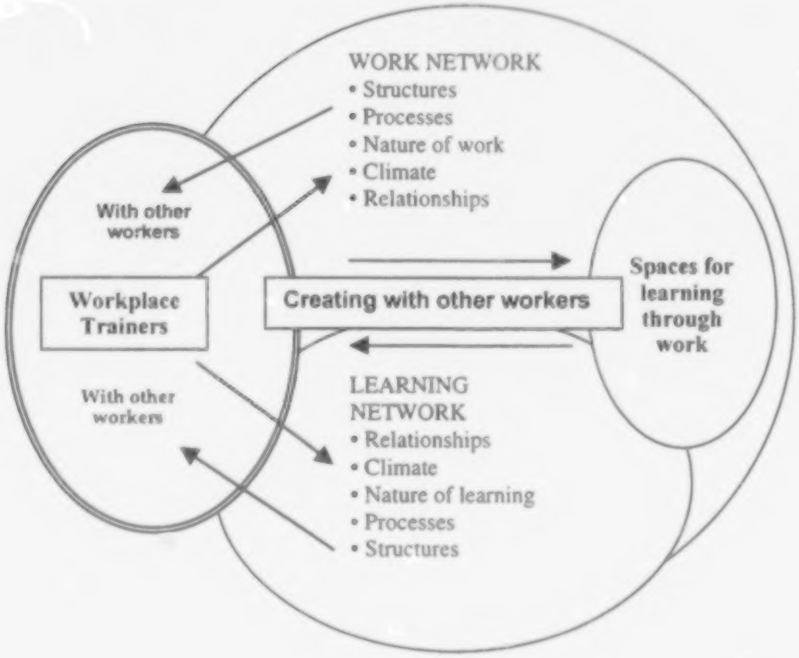
Learning networks are significant in shaping the role of the workplace trainer in an enterprise. In some cases, the workplace trainer is a key player in this network, as in the case of a trainer who is part of a human resource department in an enterprise. In other instances, the workplace trainer is predominantly a worker and the work structures, processes and content shape and limit the time and energy they can devote to facilitating learning. Hence their actions contribute to shaping a different type of learning network. The role of the workplace trainer can also be shaped indirectly through the actions of external organisations such as registered training organisations and other bodies. These external organisations act to shape the nature of the learning network that may be developed in an enterprise by supporting structures, for example, through traineeships, apprenticeships or other training programs.

In small and micro businesses, where there is often not the resources to establish learning networks supported by human resource structures, the workplace trainer, in conjunction with other workers, shapes the learning network that emerges over time. Ways of helping people to learn in an organisation often do not bear any resemblance to formal approaches to training that might be observed in institutional or other off-job settings. Learning is usually not shaped by objectives, assessment processes or structured opportunities for practice. Rather learning

- emerges idiosyncratically from the work structures, processes and content; and
- is shaped by the workplace climate and the relationships between workers.

The learning network in an enterprise is created by the actions of the workplace trainer in conjunction with other workers. Within these networks, the trainers have a unique but defined role that encompasses a range of different types of learning situations. Through their actions on the learning and work networks within an enterprise, workplace trainers are able to create, support and maintain spaces in which they support the learning of their work colleagues either as individuals or as groups of workers (Figure 1)

Figure 1: The role of the workplace trainer in an enterprise


WORK NETWORK
• Structures
• Processes
• Nature of work
• Climate
• Relationships
With other workers
Workplace Trainers
Creating with other workers
Spaces for learning through work
With other workers
LEARNING NETWORK
• Relationships
• Climate
• Nature of learning
• Processes
• Structures

Legend

The work network consists of the following components:

Structures	ways in which power, roles and responsibilities in relation to work are distributed in the enterprise
Processes	ways in which work tasks are planned, organised and implemented by the workers
Nature of work	type of work being undertaken within the enterprise, for example, repetitive jobs, broad jobs, variable jobs, complex jobs
Climate	values, beliefs and rules that govern the way people act in the workplace; climate can be influenced by specific workplace policies and legislative requirements
Relationships	values and rules that underpin the way people relate to each other during work, including communication patterns, flow, content, etc.

The learning network consists of the following components:

Relationships	values and rules that underpin the way people involved in learning communicate and relate to each other; these relationships will embody the stance and ways of thinking that individuals hold in relation to learning and facilitating the learning of work colleagues
Climate	values, beliefs and rules that underpin learning within an enterprise
Nature of learning	learning that is available within an enterprise; this can include both formal and informal opportunities for learning, as well as those that might be implemented with the assistance of external bodies such as registered training organisations
Processes	ways in which training and/or learning opportunities are planned, organised and implemented within an enterprise; this also includes the development and implementation of training policies
Structures	ways in which power, roles and responsibilities in relation to facilitating learning or providing training are distributed in the enterprise.

Our sequencing of the different components within the learning and work networks is deliberate. Other studies (Harris et al. 1998) have emphasised the high value that learners place on the relationships they have with their workplace trainers. Similarly, in this study, the ways in which roles and responsibilities for work are distributed throughout the enterprise (for example, whether the workplace trainer is also the owner of the business) impacts significantly on the work network established within that enterprise. It could be hypothesised that, within the context of an enterprise, the major components of both the learning and work networks take on more or less significance and exert differing amounts of influence on the overall shape of the networks that are built within it. Further research could be conducted to unearth the relative contribution of each component within the learning and work networks to their overall character and how differently constructed learning and work networks contribute to the overall quality of learning that occurs in the workplace.

CONCLUSION

Workplace trainers operate in complex and multi-faceted environments. For some trainers, human resource departments and interaction with external training organisations shape learning networks that are amenable to much of the current VET national reform agenda. For many other workplace trainers, and especially those in small and micro enterprises, their role is quite different. In these contexts, an effective workplace trainer is aware of the impact of the work network on learning in their enterprise and how the work network can be shaped and reshaped by their actions in supporting learning. The workplace trainer has a key role to play in assisting the altering of the 'shape' of work structures, processes, relationships, content and climate to accommodate learning in the workplace. An effective workplace trainer is able to create and shape work so that learning is possible.

We believe that the notion of the 'one size fits all' trainer as embodied in the current competency standards needs to be strongly challenged. People who are responsible for delivering training in settings which are supported by formal learning networks may be well served by existing competency standards. For other workplace trainers, however, it is important to think realistically about what is happening in their enterprises with respect to power relations, roles and the economic imperatives that drive the ways they work. It is also important to take into account the full context of an enterprise when considering training. Too often training is considered as an entity on its own, without embedding it in its context, as if it existed in the same form everywhere.

It is also time to acknowledge that the goal of promoting training / learning cultures will also require clear consideration and recognition be given to informal learning. To chat benignly about learning organisation being those where learning is co-terminous with work, or attempt to implement formal training using a top-down, deficit approach only addresses part of the entire training activity in which enterprises are involved. The first approach lacks reality and may be destined to remain in glossy managerial documents as an attractive philosophy with a growing gap between rhetoric and reality. The second is somewhat colonial and is appropriate only for certain types of organisational culture. It also 'sells short' the complex work of training in the workplace and the multiple roles that workplace trainers in all their diversity undertake in their enterprises. There are, indeed, trainers and workplace trainers.

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Measuring organisational capability: beyond competence

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ABSTRACT

Previous research by the author and colleagues has shown a recognition by organisations that they need to pay more attention to developing employee capability in order to adapt to a rapidly changing and highly turbulent world. Specifically human resource development and training methods need to be designed so that they to build on competence and find ways to enable people to learn, be creative, use competencies in novel as well as familiar circumstances, develop self-efficacy and to work well in teams. In addition human resource management needs to involve helping people use these dimensions of capability through effective systems and management behaviours. There are several lines of evidence that suggest that there is a need to move beyond training to harnessing ecological learning in order to develop human capability, as well as competence. The research described here involved the development of a diagnostic instrument to measure organisational capability that can be used to redesign training and management practice. The methodology involved a two step process; a qualitative approach first to develop a theory followed by a quantitative method to develop the instrument. The implications of this instrument, the research findings and capability for vocational education and training are discussed.

A TWO-STEP RESEARCH DESIGN TO MEASURE ORGANISATIONAL CAPABILITY

This paper reports on two stage study that set out to try and better understand the concept of organisational capability and to develop an instrument that could be used to identify its defining characteristics in any organisational setting. Initially, a qualitative study was undertaken using a Grounded Theory approach (Glaser & Straus 1967) to identify those factors that appear to contribute to organisational capability. This study has been reported elsewhere (Hase, Cairns & Malloch 1998; 1999) but is summarised below to provide context. The second stage of the study involved the development of an instrument based on the factors identified in the first stage that appear to contribute to organisational capability. This initial instrument was tested and refined using a standard quantitative approach and resulted in the final Organisational Capability Questionnaire (OCQ) measuring ten factors and which is described here. As described later the OCQ is intended as a self-report instrument for use by managers interested in evaluating their own and other employees' perception of a number of aspects of their organisation or work group. These perceptions are then used for making decisions about changing organisational climate through work or management practices.

CAPABILITY

One of the most recent models to challenge traditional concepts of learning and which looks at outcomes as well as process is that of Capability (Stephenson & Weil 1992). Capable people are those who: know how to learn; are creative; have a high degree of self-efficacy; can apply competencies in novel as well as familiar situations; and work well with others. In comparison to competency, which involves the acquisition of knowledge and skills, capability is a holistic attribute.

The world right now is no place for the inflexible, the unprepared, and the ostrich with head in sand; and this applies to organisations as well as individuals. Capable people are more likely to be able to deal effectively with the turbulent environment in which they live by possessing this 'all round' capacity. Preparedness for continual change is a key attribute for people in any workplace.

Application of the capability concept has largely involved the creation of innovative learning experiences that help develop the elements of capability in individuals (Graves 1993; Stephenson & Weil 1992) in both education settings and in the workplace. More recently, in Australia, we have been interested in not only how work based learning can develop capable people, but also how human resource management and development systems may also be designed to enable capability in everyday work (Cairns & Hase 1996; Hase 1998).

While there was a good deal of theoretical and anecdotal literature to support the largely humanistic concept of organisational capability that goes back to Carl Rogers and Abraham Maslow, it was evident that little well designed research had been conducted to date. Further, there are several lines of evidence such as the Karpin Report that support the view of Argyris and Schon (1996) that there is frequently incongruence between espoused theory and theory in action in management behaviour. The two stage process described here was an attempt to address this problem.

THE FIRST STAGE

To fulfil the initial objective of determining what might be critical elements of organisational capability Hase, Cairns & Malloch (1998) undertook a detailed case study analysis of ten Australian public and private sector organisations using a Grounded Theory (Glaser & Straus 1967) approach and interviews with 79 people. They concluded that to develop capable people and capable organisations requires major paradigm shifts in the way in which management, education / training and workplace are conceptualised.

A two stage approach was used to achieve our objectives. The first stage involved interviewing staff in 10 different organisations. These organisations were selected using criteria for assessing Capability established at conferences held by the Australian Capability Network, and also with assistance from a reference group.

The ten organisations were: an international engineering consulting company; a cement manufacturer; a large construction and mining company; special Aboriginal school; a large city council; a cable manufacturing company; a section of a large public sector organisation; an education and training provider; a large chemical manufacturing company; and a state road authority

The case studies identified a number of factors essential to achieving organisational Capability and the development of Capable people. In Capable organisations there needs to be:

1. Recognition by all levels of staff of the enormous complexity and ongoing nature of organisational change and development that affects all levels of the organisation. This recognition involves an appropriate commitment of time, energy and resources.
2. A CEO who unambiguously supports a vision of the future consistent with many of the elements of Capability. This support meant that resistance can be overcome and that innovators and 'champions for change' could thrive.
3. Skilled leaders (rather than 'managers') who have an excellent grasp of the 'soft' or people-oriented skills associated with leadership. This finding is consistent with other literature including the Karpin Report that suggests Australia needs to improve leadership/ management training. Leaders also have the capacity to manage the complexity of change and its effects on people.
4. Team based structures that enable people to be involved in decision making, have access to knowledge and information, and have responsibility for their own work.
5. Adequate reward systems that provide for the intrinsic and extrinsic needs of people. Intrinsic rewards are seen as being actively involved in decisions about work, having access to the right information, and training opportunities: these issues largely centre on feelings of empowerment. Extrinsic rewards, such as financial and other benefits are often articulated in an enterprise bargaining agreement.
6. Members of the organisation feel that individual elements (such as being valued and encouraging self-esteem) are embedded in the organisation's operations with a resultant perception of real empowerment (particularly in relation to learning control) being evident to all. People want to feel that their abilities are recognised and used.

7. Opportunities for multi-skilling provided by a commitment to the development of competencies.
8. A clear focus and commitment to learning.
9. Performance evaluation which is perceived by staff to be carried out clearly and equitably.
10. The provision of time and resources for staff learning and development.

A search conference was held after the categorisation of data to determine the implications of these findings for vocational education and training.

THE SECOND STEP

These ten factors were used to develop an initial version of the OCQ. Thirty statements were designed that addressed the factors described above (3 items per factor). Respondents were asked to indicate the extent of their agreement or disagreement with each statement on a 5-point Likert Scale. An additional 5 statements about individual capability were also included to estimate the extent to which respondents thought capability as a whole was a useful concept for an organisation. Some items were reversed to assist with response validity. These questions were piloted using 15 academics involved in management education at an Australian university and were revised for greater clarity as required. Some examples of the questions can be seen in the questionnaire below.

The questionnaire was sent to a random sample of 140 MBA students and 91 (65%) were returned. Additional information was requested about the respondent's gender, age, position in organisation and industry sector in which working. A short explanation about the questionnaire, instructions and a stamp addressed envelope were provided. It was made clear that their participation was voluntary and entirely confidential. No coding system on the questionnaires or envelopes was used.

The returned questionnaires were factor analysed using Principal Components Analysis with Equamax Rotation and subjected to a Cronbach Alpha Reliability test. Factors with an eigenvalue of above one were accepted and individual items with a reliability of below .6 were rejected. Those items with a factor loading of above .6 were used to develop the final questionnaire and each factor was labelled. Ten factors were identified which explained 67% of the total variance and they were labelled as:

Working in Teams
Competent People
Visible Vision and Values
Ensuring Learning Takes Place
Managing the Complexity of Change
Demonstrating the Human Aspects of Leadership
Change Agents
Involving People in Change
Management Development
Commitment to Organisational Development

There were no differences between any of the factors and age, sex, position or industry using a One-Way Anova.

It was encouraging that there was a high degree of overlap between these factors and those from the qualitative study given the different nature of the samples and the approaches.

THE ORGANISATIONAL CAPABILITY QUESTIONNAIRE

Instructions

This questionnaire is about organisations and the way in which people understand them.

We would appreciate your assistance by reading each of the statements provided below and indicating, on the scale provided, the extent to which you agree or disagree with what is said. Some information about you is also requested in the first section of the questionnaire.

This study is completely confidential and your anonymity will be maintained. Only the researchers conducting this study are aware of your involvement and no coding is used to identify questionnaires or envelopes.

An envelope, also not coded, is provided for the return of the questionnaire.

Thank you for your assistance.

Section A

This section consists of relevant demographic data that is of interest. Minimum data would be gender and age.

Section B

Please indicate on the numbered scale the extent to which you agree or disagree with the statement on the left. 1 indicates strong disagreement, 2 disagreement, 3 undecided, 4 agreement and 5 strong agreement.

To what extent do you agree or disagree that your organisation actively enables their employees to:

		Disagree				Agree
1.	Be creative, to think 'outside the box'.	1	2	3	4	5
2.	Use competencies in novel rather than just familiar circumstances.	1	2	3	4	5
3.	Learn from what they do.	1	2	3	4	5
4.	Demonstrate initiative.	1	2	3	4	5
5.	Develop confidence in their ability.	1	2	3	4	5

Section C

The following statements refer to your organisation. Please indicate on the scale provided the extent to which you agree or disagree with each statement.

		Disagree				Agree
6.	Our organisation commits adequate time and resources to prepare for and manage change.	1	2	3	4	5
7.	Only a few key people in our organisation are involved in organisational change processes.	1	2	3	4	5
8.	Our CEO provides highly visible support for change process that prepares the organisation for the future.	1	2	3	4	5
9.	Our organisational vision and values are consistent with a preparedness for change.	1	2	3	4	5
10.	Leadership is seen as a low level management skill in our organisation.	1	2	3	4	5
11.	Managers in our organisation are involved in human resource development.	1	2	3	4	5
12.	Team based organisational structures are an essential feature of our organisation.	1	2	3	4	5
13.	In our organisation people are allowed to accept responsibility for their own work.	1	2	3	4	5

14.	Strong people oriented skills are a feature of how change is managed in our organisation.	1	2	3	4	5
15.	In our organisation fostering intrinsic rewards for staff is not seen as important.	1	2	3	4	5
16.	People in our organisation feel that their skills are valued and used.	1	2	3	4	5
17.	The development of employee's competencies is an important organisational goal.	1	2	3	4	5
18.	Learning as part of work is valued more than training in our organisation.	1	2	3	4	5
19.	Employee needs are recognised as much as their skills in our organisation.	1	2	3	4	5
20.	Managing the complexity of change is a critical management function in our organisation.	1	2	3	4	5
21.	In our organisation there is little effort put into developing good managers.	1	2	3	4	5
22.	Our managers are helped to develop their leadership skills.	1	2	3	4	5
23.	Our organisation's capability is increased by the use of self-managing teams.	1	2	3	4	5

IMPLICATIONS FOR VOCATIONAL EDUCATION AND TRAINING

A number of implications were derived from the study so far

1. It can be predicted that in many cases theory in practice will be different from the espoused theory (Argyris & Schon, 1996). Thus the questionnaire may be valuable in identifying learning needs in terms of the dimensions identified above.

2. Vocational education and training needs to focus on developing people for the modern workplace which is demanding more holistic attributes that go beyond competence.

3. There is a need to change our understanding of what constitutes good management skills and leadership, identify when it is lacking and provide the required learning.

4. While competencies are useful in developing a multi-skilled workforce, there is a need to go further by developing capable people who can cope with the constantly changing needs of the modern workplace.

5. Working in teams is a commonly applied concept in organisations and people could benefit from special training in how to function effectively in a workplace in team based structures.

6. Developing some of the qualitative aspects of human behaviour will require new and innovative ways of learning rather than the current training approaches.

7. Education providers should consider the provision of innovative learning processes consistent with the notion of developing Capable people. There are a number of current models for developing learning cultures that could be further investigated in terms of vocational education and training. Three of these are: Work Based Learning (Hase, 1998); Ford's (1995) Integration of People, Process and Place; and Learner Managed Learning (Graves, 1993).

8. Integration of learning with other human resource management systems may facilitate a culture of learning.

9. The role of the trainer needs to change dramatically through the acquisition of new skills to develop people who can learn and thereby assist in the creation of capable organisations. The new role will be more akin to that of a learning facilitator and mentor rather than that of a trainer.

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VET research information from around the world: VOCED — Australia's international Vocational Education and Training research database

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ABSTRACT

This session will provide an overview of the VOCED research database, Australia's free international VET research database, produced by NCVER and available on the World Wide Web. It will cover what can be found in the recently expanded database, how to use the most effective searching techniques, how to obtain the full documents which are described in VOCED, and how to contribute your own research to VOCED. The database will be demonstrated live, with the latest (March 2000) upload of entries included. Those who want to try their own searches will have an opportunity to do so at the end of the session, and also at NCVER's stand during the Conference.

INTRODUCTION

This workshop will start with an overview of the history and structure of the National Vocational Education and Training Clearinghouse, and its product the Vocational Education and Training Research Database (VOCED). It will look briefly at past developments, and then cover present enhancement activities, which have developed the VOCED database into a leading international research tool and source of vocational education and training research and policy information.

The project's strategies will be outlined and the developments of the past year described and explained. Use of the database will be demonstrated, illustrated with examples to show the wider coverage of international material resulting from the upgrade project. Three new features of the search engine will also be demonstrated: truncation of the search term; augmentation of the search using the thesaurus and saving of records as references.

1. BACKGROUND TO THE VOCED DATABASE AND NATIONAL VET CLEARINGHOUSE

The National TAFE Clearinghouse commenced formal operations in October 1980 with the publication of its database, Initiatives in Technical and Further Education. It also published Projects in Progress (another hard copy publication), covering current project information. The Clearinghouse was set up by the then Conference of TAFE Directors, with the aim of avoiding unnecessary duplication of effort in TAFE research. This aim of course remains a key focus of our work today. In 1981 the National TAFE Clearinghouse became part of the TAFE National Centre for Research and Development, located in South Australia. The TAFE Clearinghouse was modelled on the ERIC Clearinghouse concept, where information related to published and unpublished material (in this case about vocational education and training) is sent to a central point from various formal nodes as well as from individuals, thus forming an information network. The Clearinghouse started with six State and two Territory Clearinghouses, plus the National Clearinghouse. In 1989 the title of the network changed from National TAFE Clearinghouse to National Vocational Education and Training Clearinghouse, reflecting the increased coverage of the information beyond just TAFE to incorporate information from the entire VET sector. The Vocational Education and Training Research Database (VOCED), also came into existence, incorporating the two existing hard copy publications (Initiatives in TAFE and Projects in Progress), and produced in an electronic version (distributed on diskette) as well as hard copy. Since then it has been produced quarterly, and now contains almost 14,000 records, of which nearly 4,000 are international entries.

The network itself has expanded to its present structure, consisting now of a Clearinghouse in each State and Territory, an adult education Clearinghouse based in the Council of Adult Education in Melbourne, a New Zealand Clearinghouse, a UNEVOC Clearinghouse and the National Clearinghouse at NCVER. Each local Clearinghouse captures information on vocational education and training from its own area, houses the documents, sends abstracts, indexes and bibliographic information about the document or projects to the National Clearinghouse, ensures access to the documents themselves and distributes and promotes the database to its own constituency.

The National Clearinghouse at NCVER is responsible for producing the database from this information, maintaining its quality and consistency, capturing national information and other information not covered by the network, and co-ordinating the network as a whole. This system has worked with goodwill and a spirit of co-operation for 20 years. The Clearinghouse officers throughout the network are a highly committed group of people who are driven by a spirit of co-operation and information sharing, and this is one of the reasons for the successful continuation of this system. It has been based in libraries, ensuring that the spirit of providing access to information is maintained. Even with the new technological developments, allowing users direct access to information via the web site, the library network will be necessary to ensure delivery of the documents to clients, using existing interlibrary loan networks and mechanisms. Librarians are also skilled in the organisation of information and the maintenance of high quality indexing and abstracting which are crucial in the inputting stage to make the information accessible.

The new developments in the Clearinghouse and database are building on a solid foundation developed over many years - the network is a well set-up and healthy co-operative venture, where all users benefit and can see that they benefit. The TAFE systems which house the local Clearinghouses contribute to the network by providing time and labour; they benefit by having ready access to a mechanism for promoting their information, and for obtaining timely and relevant information themselves. As more TAFE institutes become interested in undertaking research, and in producing reports on their findings and on initiatives in their practices, they can see the benefits of being part of a national coordinated system for sharing this information.

The information contained in the database includes:

- research reports
- information about current research (projects in progress)
- conference papers
- theses
- journal articles
- policy documents
- government reports
- evaluation studies
- survey results
- published statistics
- bibliographies

electronic documents

These are not kept in full text in the database, but are housed in the Clearinghouse, and every document entered is available by some means (usually interlibrary loan) from a specified source. It is worth noting that while the database is provided in full and free of charge on the web, for all around the world to use, the full clearinghouse document delivery service is only guaranteed to the Australian VET community, who after all are funding this service. Wherever possible, a second point of availability is included so that overseas users are given a way of obtaining the full document. Increasingly, documents are available on the web, and where this is the case a link is made to the full document from within VOCED.

Each entry in the database contains a brief abstract or description of the document, an extremely valuable aspect of the database. Contact information is provided for current projects.

2. ENHANCEMENTS — RECENT, CURRENT AND FUTURE

Access via the web

Enormous changes to the potential usefulness of the database resulted from mounting a web version. This has many benefits: users can have access from their own desktops, without relying on knowing that the system is installed in a library somewhere. They can use the mouse and hyperlink features, and cut and paste text. They can use the e-mail links to clearinghouses provided on the web site to request items and they can submit information to us about projects or documents online. It has become a truly interactive and accessible database. Our feedback from clients about the interface has been very positive, with very few enquiries about how to use it. We have provided help information and examples on the site. Our statistics kept over the first 18 months since VOCED was mounted on the Web showed a steady 400 actual searches performed each week. This is remarkably high for such a specialised database, and I am gratified to report has increased over the last year to an average of 700 searches a week, reflecting greater usage of the enhanced service.

With VOCED on the web and readily accessible to all users around the world, we were poised to expand to become providers of a truly international tool, and to increase its coverage to include not just more Australian material but key international material as well.

Increasing coverage

To increase coverage, we have been adopting a number of strategies.

Firstly, strategic alliances with relevant organisations, initially the 20 or so research centres which have been set up around Australia and are undertaking research into VET. The research context is very different now from when the Clearinghouse was first set up. Research is now not just done in the TAFE and training authorities, but in many specialised research centres, in universities and TAFE Institutes. NCVER has signed memoranda of understanding with over 20 of these centres, whereby, among other areas of cooperation, we agree to exchange documents. This means that in exchange for all of our publications, these centres send us everything they publish, of relevance, and we can then include it in the database. This results in the capture of a significant portion of key Australian VET research material.

Secondly, NCVER now plays a central role in coordinating the dispersal of funds for the national managed research program, overseen by NREC, the National Research and Evaluation Committee. This means that as soon as a project contract is signed, we can put the project information into the database, and we also have speedy access to the published outcomes, for inclusion in the database. We liaise closely with the section managing the NREC funding so that we can gather this information quickly.

With these 2 strategies in place we are able to be far more proactive and ambitious about capturing Australian VET research information. Where before VOCED had many acknowledged and frustrating gaps in its coverage, we are now in a position to aim to be comprehensive for Australian research information. I would take this chance to urge you all to tell us about your current research projects, in case we don't know about them, and to send us any papers, reports, theses or articles that you would like to see in the database. Your projects and publications will then be part of the consolidated results that appear whenever a VOCED search is done on your topic.

As well as becoming more strategic in acquiring information, we have also become more focussed on the nature of our core information. VOCED contains information on VET policy and training systems, VET research, VET practice including "how to do it" information from practitioners, and published statistics (ie not raw data). We no longer include curriculum material, as we did to some extent in the past - this is too vast a field and there are other sources for this.

We have also set up similar MOUs with a number of international organisations, so that we can also be sure of capturing all their publications. These are at present: SEAMEO VOCTECH, Colombo Plan Technician Staff College (CPSC) in the Philippines, The Overseas Vocational Training Association (OVTA) in Japan and the Korean Research Institute for Vocational Education and Training (KRIVET). Further agreements between institutions in China, Germany and Europe are presently being developed.

We have a very strong link with UNESCO's UNEVOC program, including a UNEVOC clearinghouse node, and are in the process of developing an agreement with Adelaide Institute of TAFE to become a joint UNEVOC Centre of Excellence, one of whose platforms would be the production of the VOCED database, as a vehicle for all UNEVOC research information published in English.

Our strategy for acquiring information for VOCED is essentially a two-pronged approach. On the one hand, we make use of all of our networks: the clearinghouse network, the research centres, the NREC program and the overseas partners, and the online submission mechanism, to acquire a wide range of material which is sent directly to us. This does mean we have a large amount of more obscure and rare documents, including unpublished papers and material from the Asia Pacific region which is unlikely to be held by any other database, and which is one of the great strengths of VOCED. On the other hand, we know that is not enough, and we have also strategically and systematically set about funding the acquisition of key material from a number of key sources.

Journals

In the past, VOCED did not routinely index many journals. Our coverage was sparse and sporadic. Now we have identified an initial set of key journals in the field and acquired them for the collection, backdated to the beginning of 1995. Our list of both Australian and overseas journals is now over 100 titles, and we are constantly looking for new ones. We have added 10 new titles this year. I have a handout which is a list of our first pass at this process. Later this year we'll be evaluating the titles and may drop some and of course consider adding others. I would be very grateful for feedback on this list. It has been an interesting and challenging exercise in itself just identifying relevant journals. We have also published the list on the web site, with each title linked to its entries in VOCED. The list itself is in fact a very useful resource.

Monographic publications

Similarly, we have at the same time set up a process of identifying key overseas publishers and organisations which produce relevant monographic (single) publications in the field of VET research and policy. These include the obvious ones such as OECD, CEDEFOP, the ILO, NCRVE in the US, etc but we want to cast a much wider net and identify the key research organisations in the area in a wide range of countries. Again, any suggestions here would be warmly welcomed. I have a list of over 140 organisations at this stage, which we may put up on the web as a resource in a similar way to the journals list. Again, we are going back to 1995 for our acquisition of this material as well. Most of these organisations have web sites and will eventually be included in the "annotated VET links" section of our web site.

Catch up and maintenance phases

The enhancement is taking place in two phases. The first phase, of identifying, acquiring and indexing the backdated material, is two thirds complete. It began in March 1999 and will be finished by the end of September 2000. We have ordered approximately 100 journals, taken steps to acquire back issues, and have begun indexing them, working from the most recent to the earliest and gradually going back to the 1995 issues. We are well on track to achieving our aim of all back issues indexed in the database by September 2000. We have also acquired large numbers of international monographic publications (over 2,000) for indexing, from about 150 different international organisations so far.

We are using a team of in-house indexers to maintain our existing very high standard for entries. For VOCED to be a world class international database, it is crucial that the quality of the abstracts and the assignment of index terms are to the highest possible standard, and part of this project has involved the refinement and development of our existing standards and guidelines for data entry.

As well as the high quality of the entries, the range of its coverage, the fact that it is free to use and the backup document delivery service, VOCED has another significant advantage: its timeliness. Because we put the entries in ourselves at NCVER as soon as we receive the material, there is rarely a wait of more than three months (our upload period) before an entry appears in the database for a publication. This is in striking contrast to the time taken for material to appear in many other databases. We hope always to be able to maintain this currency of the items in VOCED, and once again, I would urge you to send us your project information or documents as soon as possible so that they can go up onto the web quickly.

The maintenance phase will continue after September 2000 with at least 2 full-time continuing indexing positions, a consolidated list of evaluated serials, and a list of target organisations to monitor for publications. Our strategy of alliances with various organisations to acquire their publications for the database will continue. We anticipate that VOCED will by then be an indispensable tool for VET research and a first port of call for anyone in Australia (and indeed the rest of the world) who is seeking information on vocational education and training research.

It is important additionally to note that VOCED not only provides a single point for Australian VET researchers, policy makers and practitioners to access international information, but also offers an opportunity for those in the Australian VET community to showcase their research and policy information. A search in VOCED now results in a consolidated set of results which is a mix of Australian and international material. We hope that in providing this tool we will enable Australian researchers more easily to cite international research in their own papers as well as to promote their own work in the international arena. Australia has a thriving and focussed VET research program, which has much to offer the rest of the world.

Further refinements to the VOCED search

Several refinements to the VOCED search mechanism have just been completed and we always welcome suggestions for more. One of the advantages of developing the tools in-house is that we can customise the search engine and be responsive to users' comments, requests and suggestions.

- The new improvements are:
- Truncation of the search term

Linking the search to an online thesaurus for automatic checking of key terms

Returning the set of entries retrieved in a format which is compatible with bibliographic programs such as EndNote.

These changes have just gone up to the site and we are very keen to have feedback about them over the next 6 months or so. They are complex in themselves, though we hope they will in fact make searches easier for the user, and we have made various decisions about how to present the new functionality in the search interface which need to be evaluated by our users.

Other planned changes are:

- Modification of searches by date
- Adding "pathfinders" to the web site
- Highlighting the search term in the results
- Hotlinking e-mail addresses in the availability fields
- Putting the thesaurus itself on the website for browsing and use by other sites, in particular for metadata
- Developing Z39.50 compliance so that VOCED can be compatible with other web databases and can more readily be part of internet gateway or portal sites
- Perhaps developing our own such gateway or portal site for VET research

3. DEMONSTRATION

The second part of the workshop consisted of a demonstration of the VOCED database on the web, with examples chosen to show different kinds of searches and the range of material now covered.

Collaborative insider research in VET

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ABSTRACT

This paper talks about my experience as a TAFE staff member who opted to do a PhD on VET practices using a collaborative methodology. It will describe why I chose this pathway, a PhD, and on a topic intimately connected to my workplace. The research is about action learning as a professional development strategy. The data gathering methods I chose included participating in ANTA funded action learning. While doing this research I was working part time in TAFE, the other participants seemed to embrace me like any other member of their action learning group. The participants all consented to being part of the PhD, though their identities were to be protected. In planning my methodology for this research, I espoused an ideal of collaboration for mutual benefit. However, some of my ideas about collaborative methods came into question through the research process. Here I will recount what happened and suggest some explanations connected to the nature of work in VET and the place of academic research in VET culture.

Topic area: research methods
Key words: research methods, collaboration, action learning

As a TAFE staff member who opted to do a PhD on professional development in VET, I have found many challenges with regard to using collaborative methods for my research. This paper will explain why I chose a PhD pathway to research professional development in my workplace. It also describes my assumptions about collaborative research methods and my experience of trying to put them into practice for a PhD. This leads me to a discussion of the challenges in trying to be a collaborative researcher in the VET context.

Two key things propelled me into a PhD project. Firstly, I had spent years grappling with an understanding of the dynamics at play in my workplace, TAFE, and the wider VET sector. Second, I was keen to address the complexities and contradictions, look for new insights, draw on and extend my intellectual and creative capabilities as much as possible. My regular work in TAFE did not seem to be extending me or encouraging me in these directions. I expected a PhD would provide some structure for my thinking, and ultimately, a qualification as a reward for my efforts.

When action learning became popular for staff development in TAFE in the 1990s, I listened to the rhetoric and wondered what would happen. In brief, action learning promises to contribute to a better future wherever it is used, by facilitating collaboration between participants to find workable solutions to immediate problems. In theory, the action learning methodology emphasises reflection to develop fresh perspectives on existing knowledge and experience. This process makes the participants feel more powerful to influence their own situations, and committed to improving their situations (Revans 1983, Mumford 1996, Bunning 1991,1995, ANTA 1995, Framing the Future 1998). I was very interested in how, and upon what, action learning participants were reflecting, and whether funded action learning projects were making a difference to the participants' sense of self-direction and power in the workplace.

So it was, that I developed a research proposal around some of these questions about the practice and experience of action learning as a professional development strategy in VET. I have pursued the research by participating in three ANTA funded action learning projects for professional development. Each project was funded for four months and met four or five times over that period. There were about ten regular participants in each project. I have had numerous conversations with the project participants about their action learning and their work. I have monitored ANTA policy and literature regarding professional development practices in VET. Now I am in the final stages of writing up my PhD. To me, "collaborating" has meant serving the joint interests and purposes of the participants' professional development projects and my research. This is close to Levin's definition (Levin 1993, 331), but as Tom pointed out, "Collaborative research... is held together more by an enthusiasm for inclusion... than it is by a strong theoretical tradition" (Tom 1997, 243).

In writing the research proposal I decided on critical interpretive methodology because this provided a means to examine the dialectic between historical, cultural, structural and ideological issues and individual action; in this case, between the VET system and VET staff in action learning. I aspired to the revitalising power of this methodology to develop social insights, and to probe the possible transformation of current constraints (Angus 1986, Thomas 1993). This proposed methodology seemed consistent with action learning processes. I envisaged that using this critical interpretive methodology, I could simultaneously contribute to the action learning and the goals of the professional development projects, and in collaboration with others, critically reflect on my perceptions and experience of the constraints and opportunities.

I saw my research as a caring act, an act of commitment to the VET sector and to professional development for others and myself. As a PhD student, I was bound by university research regulations and guidelines, and as an employee of a government department, I was simultaneously bound by those departmental regulations and guidelines. The Departmental research approval process was based primarily on a concern for "Maximising collaboration and positive research outcomes" (*http://www.nexus.edu.au/Divisions/StrategicServices/planacct/researchcouncil/21ExtRschersGd.htm*). This departmental priority was entirely consistent with my own personal and professional concerns.

Nonetheless, in practice, collaboration has been problematic. I agree with Cochran-Smith and Lytle (1993), that like all human behaviour, collaborative relationships are context bound. Shacklock explained that collaborative relationships in research depend on "respect, trust, equality, flexibility and reciprocity and the conditions which establish them" (Shacklock & Smyth 1997, 4). He emphasised that collaborative relationships cannot be static, always being shaped and re-shaped by negotiations and resistances. Power emphasised that in collaborative relationships we must acknowledge and reflect upon our own political, social, generational, professional, geographic and other diversity (Power 1998). There is limited value in commentary on collaborative educational research that masks these issues and problems. As Cochran-Smith & Lytle (1993) and Smyth & Shacklock (1997) advocate, I wish, through the descriptions and analysis in this paper, to contribute to a conversation about the particulars of how and why what works in collaborative research relationships, and for whom it works, within a particular contexts. This particularity was a VET context where I saw myself as an insider.

I did not want to objectify the participants in this research. I was and am deeply concerned about issues around using power *with* others rather than using power *over* them, and how I have used what power I had and still have in this research project. Like Shacklock & Smyth (1997), Noddings (1986 & 1988), and VanManen (1990 & 1991), I hoped that by engaging with me in this research project, participants would exchange new and different insights that would not have necessarily emerged otherwise. Like Day and other authors, I envisaged that my research could be "valued by, and of use to, those without whose collaboration and active participation it could not occur" (Day 1991, 538, also Sultana 1992, Gitlin 1992, Reimer 1993, Heron 1996). I aspired to what Lather described as an "interactive" approach to research "that invites reciprocal reflexivity and critique, which guard against... imposition and reification on the part of the researcher" (Lather 1991, 59).

When I conceived this research I worked full time in TAFE, and intended to continue working in TAFE, aspiring to work more in professional development. I had no interest in "hit and run" research (Day 1991), the term used to describe the processes where researchers enter a site, collect data on or from participants, take that data away, analyse and interpret it without further reference to the site or the participants, and then publish reports which the participants may never see, or may not identify with. Such processes are not in my interests if I want to maintain credibility and respect among my TAFE colleagues; that credibility and respect I need to keep working effectively in the VET sector.

I depended on the trust and respect of the participants to ensure I was able to collect data. My chosen methodology relied on me participating in action learning sets, and the participants' willingness to interact with me openly in conversation about the action learning process. However, by the time I approached the action learning participants, I had chosen my initial research questions and preferred methods. About those aspects I did not consult, although I believed I was open to challenge and change.

Due to my work history in TAFE, I knew most of the participants in the sets. If not from working together directly in the same work team or committee, we knew each other by reputation. As far as

I knew and could tell from these particular participants, my reputation was one of integrity, trustworthiness, being hard working and out spoken but a good listener. These are qualities I value and aspire to, but take effort to maintain. I also wanted to be open, inclusive, negotiable, encouraging, supportive about the action learning. I planned how I might be able to maintain, practice and demonstrate these with the action learning sets. My strategies were to

- explain my research questions and motivations as openly as I could;
- answer questions about my research as fully as I could;
- invite participant access to the field notes and conversation transcripts, data analysis and interpretation;
- try to explicitly address and incorporate suggestions from participants about the research process, data analysis and interpretation;
- maintain open and on-going dialogue with the action learning participants about my research;
- participate actively and as fully as possible in the action learning projects; and
- write accounts of the research in plain English.

Now I want to reflect on the evidence about how other people saw this PhD project. This is an account of how I have experienced of the responses of other VET staff.

My line manager did not seem supportive. Although it was conceivable that I do my PhD while I maintained my regular job, I have not done so because I have perceived such a lack of support at my regular workplace. It has been a conflicted situation, reflecting at least a mismatch between my professional values and those with local power in my workplace. I have had leave from my regular position, and worked in a variety of short term, part-time arrangements. This experience has affected my self-image as an "insider", but the action learning participants actively included me in the projects as if I was one of them.

As I have described above, my idea to do this PhD did not arise out of a stated organisational interest in research on professional development. The action learning groups who collaborated in the study did not suggest a PhD. Having decided to do a PhD, and formulated the research questions, I sought, and quickly received, letters of support from the Department of TAFE (as it was then) and the Australian Education Union. When the funding for professional development was awarded, I approached the project managers to make the initial contact about what I wanted to do. There were four projects funded to do action learning at that time. On hearing about my research interest to participate in their action learning set, three of the managers immediately responded positively. I had to remind each of them that the question needed to be discussed with the participants, to get their permission and agreement about the processes. One of the four managers explained that she had a previous experience with another researcher that was not positive, and she decided she did not want to risk a repeat of that. She was unwilling to ask the participants in her project about my possible involvement.

In three projects, the project managers made me feel very welcome. Two project managers asked me would I facilitate the set because they wanted to draw on my experience in the VET sector, and my experience with action learning. After long consideration I agreed to facilitate the first set because the manager assured me she had approached other potential facilitators to no avail. At that point in time, there were no other projects funded to do action learning, and I felt heavily dependent on this project to proceed with my research. If I agreed to facilitate, the action learning and my research could begin. By the time I received the request from the second manager, I was participating in two sets, and did not believe I had the time and energy to facilitate another set as well as proceed with my data collection. I was able to recommend another man who agreed to take the facilitation contract. In turn, he used me as a consultant and confidante about facilitation of that particular action learning set. The third manager had already appointed a facilitator, but was enthusiastic about the prospect of using me to help her evaluate the project. I pointed out to this manager than my research was not an evaluation, but I would probably be able to assist her as she wished based on other experience I had with evaluation.

In each project I had to negotiate for time with the action learning set to present the proposition of participating in the research. From my reading about research methods and ethics, and the account of the experience of the manager of the fourth set I approached, I was well aware that unforeseen challenges could arise in research processes, as human interests and understandings diverge. So much depended on participant consent, and our mutual understanding of expectations, our ability to negotiate openly if differences emerged. In each project, when the time came for me to introduce my research and invite my colleagues to participate and sign the consent form about their participation, I became very anxious that these potential participants may refuse.

The participants readily agreed to participate. That meant they were accepting me as part of their action learning group, knowing I was doing a thesis on action learning using the group as an example and data source. They seemed much more interested in getting on with the project, than discussing the research questions and methods. Each one signed the consent form that made explicit how I intended to collect and use data, and that each participant was invited to contribute to interpretation of the data. In the set where I was facilitating I had some more control over the agenda and process than in the other sets. Nonetheless, it was still not easy to engage the participants in considering the issues connecting with being involved in my PhD research project. The participants did not question me about my participation in the sets. They were concerned about whether contributing to my PhD would take more of their time, and stressed to me how busy they were. I told them I would like to engage in conversations about why they got involved in action learning, how the action learning was working for them, and their perception of the place of action learning in VET.

When I pursued these conversations, I was challenged by how little time the participants were willing to give to talking to me. Clearly it was not a priority for them, amongst all the other demands on their time. I had undertaken to come to talk with them at a time and to a place that suited their convenience. Still it was difficult to get them to identify in their schedules a space for those conversations I requested. Some people postponed the arranged times, and some were only willing to talk to me on the telephone in the evenings. The participants were initially expecting me to have a list of questions, like a structured interview. What I was looking for was a reflective conversation where participants and I talked openly about the action learning process and experience. I wanted a conversational space to pursue greater understanding and envisioning of the action learning and the teachers' work in the VET system. Once I had engaged participants, and clarified my purpose, I found that it was difficult to disengage from the conversations. However, the next time I approached the participants for an appointment for a "conversation", it was still very difficult to find time.

In the set meetings, I felt included like everyone else. I contributed to discussions, learned from the other people present, participated in all the set activities. At various times I had unique knowledge about certain systems or activities that I was glad to be able to share. I felt well-used as a sounding board by two set managers and one facilitator. In the set I facilitated, the responsibility for many administrative functions, editing, and final compilation of the set's product fell to me. In this set, I felt indispensable to the on-going process and successful completion as per the contract requirements.

I was also aware of my difference, being the only one doing a PhD. I was the only one taking field notes and recording people talking. In other ways, like age, anglo-western cultural background and professional experience, I seemed more similar than different. The participants were conscious of my research activity because they asked me when I would finish. I explained to them that it would take me at least another couple of years. It surprised me that they seemed so surprised. I explained something about how I saw the PhD process. They told me that they could not understand my motivation to do something like that. I was left with a feeling that most of them did not appreciate what was involved in a PhD, but they had no intention to obstruct the process. Once a participant in the third set asked me what I took notes about in my field notes book. I showed her, and talked to her about what I thought I was looking for.

In each participating set, about the time of the third set meeting, I checked with the participants that they were comfortable with the research processes. I felt there was a cursory agreement, and an unwillingness to spend a lot of time on my query. Two sets only had four meetings, and one set had five meetings. At the last meeting of each set, I thanked the participants for their cooperation. I did not find a cue to say that I had hoped they would be even more involved than they had been. I did ask them whether they would like to read any of my draft writing for the PhD, or conference papers on action learning in VET. A few people indicated they would like to read, a few were silent on the matter, and the rest said definitely not.

I have sent writing about the action learning to nine participants. Three have responded. I am unsure if the other six have read what I sent. I have been able to incorporate, as additional data, comments I have received from the participants who read what I sent them. However, I have not been able to establish an on-going conversation about the data analysis, since the end of the action learning projects.

The lack of on-going conversation disappoints me to some extent, and has made me question myself about how collaborative the meaning-making in this research has been. On one hand, the participants did contribute to the conversations we had about the action learning during the projects. On the other hand, as the final analysis of the data and writing up my interpretations is such an intense process, and I am on-leave from my work in TAFE to do this writing, I am feeling less collaborative and less like an insider.

In the final section of this paper I wish to consider then, to what extent can I sustain the claim that this was "collaborative insider research", as I intended it would be? I observe that collaboration is often connoted, in the research methodology literature, with mutual interests and mutual benefits (Reimer & Bruce 1993, Edelsky & Boyd 1993, Brennan 1999), and shared authority over design, process and outcomes (Day 1991, Tom 1997).

In this research the participants did not expressly contribute to the design, nor have direct control over the outcomes. However, there is little doubt that the participants willingly cooperated with the data collection processes. Their purposes were not the same as mine, with respect to my aspiration to do a PhD dissertation, so they were not so willing to spend as much time as I would have liked in reflective conversations and analysing data. Time was a constant challenge in the action learning. Short timelines restricted the participants being able to meet the purposes they set themselves, let alone assisting my different purposes. The circumstances of always needing to deliver outcomes in short time frames make the VET culture a responsive one, with little time for reflective thinking and theorising. A PhD typically requires extensive reflection and theorising, and thereby, it is not a common undertaking among VET teachers. This partly explains the sense of a relative lack of appreciation among my work colleagues of what is involved in a PhD.

(Interestingly, academic literature searches have also indicated that collaborative research in VET is relatively rare. Searching for terms "collaboration" or "collaborative research" and "vocational education" in ERIC and AEI returned very few matches relevant to this conversation.)

So what motivated the participants to collaborate with me in the way they did? It is clear that I was getting data for a PhD out of this contract. What did they get out if it, since they were not aiming for doctorates? My answer is that I was able to offer practical assistance and information to them in return, so that the participants did get value from having me in their action learning set. In one project, I carried the responsibility of facilitation, considerable administration, editing and overseeing final production of their publication. In all projects, the participants drew upon my considerable knowledge of and experience with VET systems and action learning. My access to academic literature was also used when the participants wanted to find information on particular topics. They have invited me, also, to make presentations about the action learning, that is, nominated me to be a spokesperson for them in a number of forums.

This collaboration was based partly on an exchange. The give-and-take is one kind of "reciprocity", although perhaps not exactly what Lather referred to. Lather (1991) and Brunner (1999) wrote of "give and take", but apparently referring more to give and take in the "mutual negotiation of meaning and power" (Lather 1991, 57). As I have described, the action learning participants and I have had some mutual negotiation of meanings in conversation. It can be seen as a practical exchange: they gave their time and thinking in reflective conversations with me, and I gave my time and thinking in the projects. Brunner suggests that reciprocity involves the researcher being "committed to inviting participants' reactions to particular theories offered [by the researcher]..." I would claim that I was committed to this, but the participants had other priorities. The participants did not always accept the invitation, so I can only claim that I have tried to be collaborative. I have a moral obligation to be frank that there was a material exchange of resources between the participants and I, but the theoretical (Lather and Brunner style) exchange was more limited. I am not confident that I achieved my initial goal to exchange new and different insights with the action learning participants, insights that would not have necessarily emerged without my research project.

I claim this is "insider" research, despite my conflicts with my line management. I have a past, current, and hopefully a future role in TAFE, and in the research process, I have drawn on my experiential knowledge of organisational history, working relationships and personal alliances. This is characteristic of "insider" research according to Smyth & Holian (1999), and they say typically, there is stress involved in maintaining working relationships, job requirements, role expectations and doing the research. That stress is part of my experience although it is not elaborated at length in this paper.

Here I have tried to describe my researcher role in action, and explain my claims that it has been insider and collaborative research. I have indicated that "insider" and "collaborative" are problematic terms, but have shown what they meant in the context of my PhD research. The ideal in collaborative research does still seem to be joint involvement of participants with the researcher/s in defining research aims and goals, data collection, analysis and interpretation, and decisions about form and forums for presentation of results. While not being absolutely achievable, this ideal provides a reference point for aspirations and discussion of what is possible in specific situations.

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Researching VET and the voluntary sector: getting started

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BACKGROUND

In considering vocational education and training for work, we usually concentrate on work that generates income. But what of work undertaken by volunteers? If we consider their products and services, and the resulting increased wellbeing of individuals, together with increased social cohesion (social capital), and the sense of fulfilment gained by the volunteers themselves, their work has significant worth. Using a broad definition of voluntary work, Ironmonger concludes

> If the households and organisations paid the full cost of the benefits they received in the form of voluntarily provided goods and services received, the money involved would be equivalent to about eight percent of GDP ($31 billion in 1992) (Ironmonger 1998, 23).

The (then) Industry Commission (1995, 121-124), on the other hand, in its report *Charitable Organisations in Australia*, considers estimating to be problematic and chooses not to do so. Albeit, the work of volunteers constitutes a significant wealth contribution to the community.

Accordingly, CEET took the view that analysis of the economics of VET needed to be broad enough to encompass the contribution of volunteers.

Were volunteers not mentioned in the National Strategy for Vocational Education and Training (Australian National Training Authority 1998) because their learning needs had been adequately addressed in other ways, or because they had lost out to what were judged to be higher priorities, or because provision had been implicitly subsumed in that for the market economy? Or had volunteers not been considered? Neither the mainstream research literature in economics nor in vocational education and training has given much attention to the work of volunteers. Managing volunteers finds a place in the management literature. There is also a research literature on the economics of households as sources of capital and labour, whether relationship-based, voluntary or paid. But reports on the work of volunteers are few outside the specialist journals.

Developments on a number of fronts suggested to us that the training of volunteers might be deserving of the attention of policy makers and therefore an important area of potential research. Jeremy Rifkin, in his book, *The End of Work*, suggests that we face a world in which the demand for products and services from the market economy, will be inadequate to meet people's need for fulfilment through socially useful activity (Rifkin 1996). Rifkin argues that the voluntary sector has the potential to utilise this excess productive capacity to the benefit of society as a whole. In Australia, we see governments decreasing their delivery of support services and instead contracting them out to not-for-profit organisations, work that may involve volunteers. The Australian Bureau of Statistics (ABS) found that, in June 1995, 46,000 volunteer workers were looking for paid employment, 43,000 of whom sought full time work (Trewin 1996, 9).

Perhaps most significant of all, is lifelong learning policy. The notion of learning for work is no longer of an intense period of study undertaken on leaving school; instead it is of a lifetime process of change, development and fulfilment where the boundaries between learning and contributing, and indeed, being, are not easily distinguishable. To suggest that work in this context means paid work but not voluntary work would be contrary to the holistic intent of lifelong learning policy.

We therefore included a small project within CEET's research program for 1999, in which we would attempt to conceptualise the issues involved with respect to VET and the voluntary sector.

Our particular interest was the training of volunteers; but in order to examine their training needs and the social and economic implications of their work, it has been necessary to look more broadly, by investigating the organisations that employ them. However, the voluntary sector is composed not only of voluntary organisations employing volunteers. Many not-for-profit organisations have some paid employees, especially in management. Volunteers operate within public instrumentalities such as schools and hospitals, where the majority of personnel are paid.

We have not circumscribed our initial investigations by defining our project so as possibly to exclude some of the organisations that employed volunteers. Even then we have set boundaries. By accepting the ABS definition of a volunteer as 'someone who willingly gives unpaid help in the form of time, service or skills through an organisation or group' (Trewin ibid, 31) we have excluded all work falling outside structured bodies.

METHOD

As a review of the literature was unlikely to provide an adequate basis upon which to conceptualise any training issues, it was necessary to undertake some face-to-face research. We conjectured that by bringing together key people as speakers who had an interest in the area, and providing opportunities for interchange, an overview of the issues and complexities would be gained. Given the size and diversity of the voluntary sector, it was impossible to have participants from all major groups. However, we sought to ensure that speakers from the sector, together, constituted a fairly representative sample of the sorts of organisations making it up.

In order to give direction to proceedings, the day was structured around a series of questions:

- In an ideal world, what training would be provided and by whom, how would it be provided, and in what way would it be recognised both within the employing voluntary organisation and externally?
- How do volunteers currently gain their training?
- To what degree does training currently meet the needs of the organisations for which volunteers work?
- Do volunteers want more or a higher standard of training?
- What are the current constraints on training of volunteers?
- What would be the funding implications?
- To what degree does voluntary work provide a path to paid work, and might a different approach to training increase passage along this path?
- Are the National Strategy for VET and Training Packages applicable to the needs of the voluntary sector?

Table 1 details the invitees who attended as speakers at CEET's one day seminar conducted in November 1999 entitled *VET and the Voluntary Sector: conceptualising the issues*. In addition, Professor Meredith Edwards, Deputy Vice Chancellor of the University of Canberra, undertook the summing up.

Table 1: CEET Seminar — invited speakers

Name	Organisation
Ms Margaret Campion	Volunteer Co-ordinator, 3 RPH Radio for the Print Handicapped
Ms Georgie Cane	EO, Business Skills Victoria (ITAB)
Ms Sha Cordingly	CEO, Volunteering Australia
Ms Dianne Cowan	Volunteer Involvement Program Officer, Australian Sports Commission
Mr Tony Duckmanton	Senior Consultant-Program Development, Country Fire Authority Victoria
Mr Michael Gibbs	Manager, South Australian School of Volunteer Management
Mr Rex Hewett	Federal TAFE Secretary, Australian Education Union
Ms Linda McGuire	Lecturer, Faculty of Business and Economics, Monash University
Ms Kath Nicholls	President of CAMCARE (a Community Information Centre)
Ms Rena Pritchard	School Council President on behalf of Victorian Council of School Organisation
Mr Stephen Quirk	Principal Project Officer, ANTA
Professor Andrew Strickland	Adjunct Professor, University of South Australia
Ms Dianne Weidner OAM (opening address)	Chair of Australian Council of National Trusts
Ms Liz Wright	Manager-Projects and Priorities, Victorian Community Services and Health ITB (ITAB)

FINDINGS

The seminar provided some initial, albeit incomplete, answers to the questions we had set.

An ideal world

In an ideal world, organisations would have the best mix of volunteer and paid personnel. It was said that volunteers "provide a distinctive capability for the organisation". Management's understanding of the respective roles provides a basis upon which the best mix can be established-voluntary organisations, like enterprises in the market economy, need to be strategic.

An ongoing theme in the presentations and discussion was the ambiguous nature of the volunteer role. Volunteers give of themselves and expect that their skills and contributions will be valued without what are perceived to be threatening assessments. One speaker said: "We also need to ensure that training is not perceived as insulting." Notwithstanding, duty of care, and/or potential for litigation, and/or the hazardous nature of tasks mean that work must be competently performed. Nor is the recipient satisfied with 'second best'. As was said for fire fighters, "People just want a BRT (big red truck)"-people whose property is aflame are not interested in whether those in the truck are paid personnel or volunteers. For many of the one and a half million volunteers working in sporting groups, child protection responsibilities have learning implications. In an ideal world, a balance would be found between the validity and reliability of assessment and the expectations of the volunteer.

In an ideal world, too, volunteers and potential employers in the market economy would be aware of the relevance of volunteer learning to employment in the market economy. For instance, volunteers in community radio are commonly highly skilled in the key competencies as well as having more industry specific skills; but few volunteers recognise the transferability of their capabilities. Employers in firms and the public sector seldom do either. Ideally, volunteer work would sit alongside paid work in CVs, and be treated as of equal reliability as an indicator of employability. Furthermore, firms that employ people who also work as volunteers-about sixty-five percent of volunteers are in paid employment (Trewin ibid, 9)-would gain prestige from supporting their personnel in their voluntary work, rather than viewing the work as a potential liability and distraction.

Current training arrangements

Given tensions between the voluntary nature of the work and the need for competence, the tendency is for some training to be provided but learning not to be formally assessed. In sport, there is a dual system where most volunteers undertake informal training through a Volunteer Improvement Program yielding a certificate of participation, whilst about ten percent choose to undertake the Certificate II in Sport and Recreation. Similarly, in fire services, some have undertaken the Certificate II in Fire Operations whilst the rest have undergone only informal training. But an objective of fire services is that every fire fighter in the country will be formally qualified. Those who work in community advisory services also undertake various more or less informal courses. In Victoria, public provision of recognised training for volunteers has a relatively long history. A course was first statewide accredited in 1984 as a certificate for volunteers working in Citizen Advisory Bureaus. As was said, "Volunteers have to deal with almost any situation, including when the drunken aggressive walks in; they have to be trained!"

Trewin concluded from the ABS survey that 'the nature of a person's voluntary work was closely related to their type of employment' (Trewin ibid, 4), though scrutiny of the data suggests only a weak relationship. But if it is so, many bring to their voluntary role, skills that they have already acquired through paid employment. However, one person at the seminar queried whether there are duties and tasks which volunteers perform that would not normally be part of the job profile of a paid worker. The question, put rhetorically, was never addressed, but remains fundamental in considering training issues.

Recruitment processes were said to be important in ensuring that volunteers are already capable in aspects of the work to be performed, or at least are of a suitable physical or emotional disposition. For instance, the National Trust pre-tests would-be volunteers and the Radio for the Print Handicapped assesses the reading skills of those applying to be readers.

It seems that many of the skills exhibited by volunteers, especially the general ones, have been acquired before commencement of voluntary work. Induction training, informal short courses and in some cases, formal training, are employed to skill the worker further, as they are in firms and public sector enterprises.

Training needs

It was suggested that a need for a higher standard of training does not always mean a higher level of outcome. Rather, it can mean that training delivery should be of a higher standard. It was felt that a better standard of delivery would go some of the way to overcoming the tensions associated with the training of volunteers by making training more satisfying.

Volunteering Australia, with nearly four thousand organisational members, has a Code of Practice that requires organisations that adopt it to provide volunteers with adequate training to perform work effectively, and to provide professional development. But volunteers must, it seems, first see the relevance. It was said that volunteer radio workers willingly undergo radio-specific training, but few have been willing to undertake general training in assisting the visually impaired person.

Regardless of how successful recruitment and induction have been in providing a pool of skilled volunteers, organisational change means there will, sooner or later, be a need for further training, if the requirements of the organisation are to continue to be met. This, of course, can result in loss of services where the volunteer does not wish to undertake the new duties or adapt to the new technology. Given that volunteers are not dependent on their work for financial income, they are freer to resign than are paid workers. Conversely, those things that caused them to volunteer, such as a wish to contribute or a desire for social contact (Trewin ibid, 19), may induce them to stay.

However, the new skills required may be very different and not amenable to brief periods of training. In Victoria under the previous government, school boards and committees were being expected to adopt a management role complementing the community-input role that they had performed previously. It was said that, not only have many volunteer members felt unable do so as they have lacked the necessary skills, many have walked away suffering from burnout. (It was claimed that there are now "too many experts on committees, with a loss of people with a civic consciousness").

Constraints on training/path to paid work

Most speakers referred to the constraints on training of volunteers. Financial constraints were, naturally, a major one. It was claimed that, for many small organisations, provision of the ideal level of training would be beyond their resources and would amount to self-destruction.

Volunteer organisations face a similar investment question to firms when it comes to training-will the person in receipt of training stay with the organisation long enough to deliver a return that justifies the investment? The opinion was that many young volunteers who train, leave the organisation because, in contrast to most older volunteers, they are using volunteering as a path to paid work. Certainly, it is an important observation that deserves further exploration. It is not possible to confirm this from the ABS study, though sixteen percent of the 15-24 age group reported gaining work experience/reference as a reason for undertaking voluntary work, with smaller percentages for older age groups (Trewin ibid, 19). If well founded, it may be an incentive to government to provide more training to young people through the voluntary sector. However, the issue is problematic. Cordingly, elsewhere, critically examines the issue of involving the sector in provision of volunteer work as part of labour market programs (Cordingly 1997, 5-6). She judges that not only do volunteer organisations lack the resources to act as on-the-job training providers, they may experience disharmony amongst volunteers as the result of creating two groups-those whose attendance is formally monitored and those who are treated more trustingly.

The seminar also revealed that training can create resentment between volunteers and paid workers.

There are other constraints too. Voluntary organisations commonly lack people with the skills to train others. Setting up new centres distant to existing ones was mentioned as problematic: there is no one already located who can pass on the skills. Furthermore, volunteers typically are busy people. It was suggested that training should be provided at times during which volunteers normally work. For class-based training this may be impracticable because volunteers are often rostered round the clock with few on the job at any one time.

Funding

There was general agreement that the amount of training for volunteers falls well short of that required for the sector to function most effectively. It was considered that a strong case can be made for provision of public funding to support volunteer training and especially, for trainers of volunteers. One participant remarked, "If government is withdrawing from service provision, it should be training the organisations to train, that pick up the contracts", given that governments are increasingly contracting voluntary organisations to deliver services that may involve unpaid personnel.

It was suggested that, should the sector argue for funding support for training, the whole of the education budget should be considered, not only that for VET. There is a need to know how much of publicly and privately funded education and training ostensibly delivered for or by the market economy, effectively contributes to volunteer performance. Not only are there those who transfer their learning from their paid job, presumably there are others who enrol in mainstream courses to assist them in their volunteer role.

The seminar supported there being some segmentation of volunteers by age. As discussed above, young people are more likely to use volunteering as a path to paid work. The ABS found that the peak age group for volunteering was 35-39, but there was a smaller peak at around 65-69. Accordingly, numbers in sport and recreation and in education, training and youth development peaked at 35-39. But numbers in welfare and community services were highest amongst older people (Trewin ibid, 2). The seminar confirmed the intuitive conclusion that much of the work in sport and recreation, and in education, training and youth development flows from parenting. By contrast, work in welfare and community services is more disinterested.

At the seminar, volunteers altogether were said to provide about five billion dollars in services, a figure much less than that of Ironmonger's, with sport and recreation contributing about two billion dollars or about $330 per household. About one and a half million people were said to be working in sport and recreation, nearly twice that found by the ABS in 1994-95. The ABS had estimated the numbers working as volunteers in welfare, community and health to be of a similar order to numbers working in sport and recreation. Altogether, about a fifth of the adult population had been estimated as working as volunteers during the year 1994-95 (Trewin ibid, 1,10).

THE NATIONAL STRATEGY FOR VET AND TRAINING PACKAGES

For some voluntary services, Training Packages are viewed as a suitable resource in the training of at least some volunteers. For fire protection personnel it was said, "There is only one standard- the fire competencies". These are now being incorporated into the Training Package for emergency services. Competencies are finding a place, not only in training, but also in identifying people skilled to undertake a particular task, and in evaluating brigade performance. Competencies for Community Information Centre workers, too, are being made part of a Training Package.

Seminar participants pointed out that voluntary organisations' adoption of competencies as a resource allows them to be customised and they can be used in different ways. A scheme was described that brought together competencies from a range of sources as a basis for training of volunteers and supervisors in Red Cross retail outlets.

Notwithstanding, the complexities of the VET system were considered to remain a hindrance to acceptance of recognised training by volunteers. As one speaker said, "Give me something easy to understand so that I can promote it!"

The view was expressed at the seminar that there is no fundamental reason why ANTA's National Strategy could not include the voluntary sector within its priorities, and address training of volunteers.

CONCLUSION

One seminar participant said, "All the requirements of the workplace in the market economy for paid workers are also the requirements of voluntary workers". But meeting those requirements with volunteer workers has similarities and differences to doing so with paid workers.

Further research is required to start to address questions such as:

- What criteria should be used to determine whether governments should be involved in training for the voluntary sector and volunteers?
- Is there a role for peak bodies to champion the training interests of voluntary organisations?
- What role should governments and public sector training providers play in training for the voluntary sector?
- How can we measure the worth of the sector so as to fully reflect its contribution to social capital?
- To what extent do businesses gain a return from support for voluntary organisations and the volunteer work of their personnel?

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English rules OK?
English Language Training and its role in selling the global/local Englishes

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1.1 AIM AND FOCUS

This project, involving Australian and Malaysian researchers from RMIT University, Queensland University of Technology and the Universiti Sains Malaysia, will investigate the intercultural competencies needed by those involved in the English Language Teaching (ELT) business for engaging in transnational markets.

It focuses on the links between the globalisation/localisation of English and the responsiveness of the Australian, Malaysian and Indonesian education industry to the teaching of global/local Englishes internationally including their relationship with Bahasa Malaysia/Bahasa Indonesian. The project will investigate the tension-ridden links between the complexities of global/local Englishes and the marketing of ELT products and services globally.

The research team will explore the development of English as a worldwide language, albeit one which is not as a singular, homogenous global English, but as a series of heterogeneous hybridisations of global/local Englishes owned by many culturally different peoples. This hybridity now means that participation in transnational ELT business demands a sensitivity and responsiveness to the diverse uses that culturally different clients will make of complex global/local Englishes. The research team, using case studies from Australia, Malaysia and Indonesia, will seek to theorise the worldwide spread of English and dilemmas associated with the transnational ELT business.

This project evolves from a cluster of questions that provides the basis for collecting, analysing and interpreting evidence, and for publishing work arising from this project:

- What are the features of the market in ELT and the products and services emerging in this market?
- What influence does the cultural and linguistic context of post-colonial settings in Australia, Malaysia and Indonesia have on the character and nature of English and the ELT market?
- How might the evidence generated by this project inform the theorisation of the social and cultural dimensions of the interdependent processes of globalisation and localisation ?

1.2 RESEARCH AIMS

1. To investigate ways education providers have/need to reposition themselves to become increasingly entrepreneurial in the delivery of educational products in international markets by

    - mapping developments in the transnational ELT business with a specific focus on the interface between Australia, Malaysia and Indonesia.
    - exploring the nature and character of ELT products and the changing features of the market (including official languages), and the tensions and contradictions which emerge.
    - studying the intercultural competencies required to participate in the ELT market and to reposition the products and services of ELT providers with particular reference to the global market.

2. To analyse the evidence in terms of contemporary efforts to theorise the social and cultural dimensions of the interdependent processes of globalisation and localisation, especially as these relate to tensions between the changing nature and role of English as a global/local language and changes in power and control in the ELTS industry.

1.3 RESEARCH OUTCOMES

The expected outcomes and benefits of this research project are:

- Adding to the knowledge and developing insights concerning global/local Englishes and the ELT business which can guide and inform language education policy and practice.
- Providing a sound knowledge base for encouraging an informed debate addressing the risks presented by global Englishes, particularly in reference to Bahasa Malaysia and Bahasa Indonesian.
- Contribute to the quality of Australian, Malaysian and Indonesian cultures by exploring the possibilities for engaging with local/global Englishes.

1.4 SIGNIFICANCE OF THE PROJECT: INVESTIGATION OF THREE ELT TRENDS

This study is intended to address the practical demands on professionals working in the ELT business. The provision of ELT is characterised by an increasingly competitive and commercialised market-based environment that features an increasingly blurred boundary between private and public providers accessing niche markets in global contexts. This project will investigate three key trends in the ELT business.

Trend 1. Diversification of ELT products and services

The transnational ELT business is a growing industry that supplies a diverse range of products and services to speakers of other languages prime amongst these being "standardised English." In addition to varieties of standardised Englishes, other worldwide exports include ELT teachers; theories and methods of ELT teaching, and ELT materials, books and courses. Associated with this is English for Special Purposes such as business, science and technology, health and medicine.

Trend 2. A competitive ELT market

The positioning of English as a global language is accompanied by the development of a vigorous and highly competitive market. Since the 1970s the British Council has been a key participant in the market, because, as the Council says, it "established its position as the world authority on TESL/TEFL. The Council's aims are to secure a substantial share of the global market for its ELT products and services, and to recover the full range of costs and make a profit while doing so. The Council has been working to improve its business performance through investing in products such as Direct Teaching of English and increasing the demand for English language examinations (Pennycook, 1994, p. 157). In the transnational market for the Council's ELT services and products Malaysia (and to a lesser extent Indonesia) occupies particular significance as former colonies and as a participants in the global economy.

Trend 3. New forms of selling English and Englishes

As early as 1968 the British Council stated that there "is a hidden sales element in every English teacher, book, magazine, film-strip and television programme sent overseas." (Pennycook, 1994, p. 145) In helping to sell the English language world-wide through spreading its study and use, the Council simultaneously tried to develop students' cultural understanding of British literature, arts and politics, and to further the interests of Britain. The spending of public money on this "cultural propaganda" was, as Pennycook (1994, pp. 147-148) explains, justified by its political and economic significance. Politically, the Council sought to use its ELT commodities to influence the views of elites in its former colonies as part of the Cold War struggle against communism (and global flows of Third World peoples to First World nations). Economically, the British Council (cited in Pennycook, 1994, p. 149) sought to further the use of "English as the language of transnational commerce opening the world more readily to our [British] salesmen [sic]". The shift of countries such as Indonesia to English is indicative of its success.

1.5 CONCEPTUAL SIGNIFICANCE

The conceptual significance of this study lies in its exploration of the uses of international education and the influence of localised cultural meanings and practices in forming a range of Englishes (McCarthy, 1998). The global proportions of English makes issues of local contestation and cultural differences particularly significant as English is put to many "local uses" in diverse contexts around the world (Achebe, 1994, p. 433). This research will explore the emergence of English as a global/local language in Australia, Indonesia and Malaysia through analysis of the four sets of relationships.

Relationship 1: education and colonisation

In Australia, Malaysia and Indonesia, English has been used to promote and maintain British cultural and economic imperialism, albeit not without contestation. The enduring legacies and dependencies of colonialism have been reaffirmed through the provision of English language education services. English has often been used as a means of subjugation and continues to be an important means through which neo-colonial power is exercised (Thiong'o, 1994, p. 437). Viswanathan (1992) contends that English literary studies was invented in British India to serve a range of socio-political imperatives developing an aesthetic sense and disciplining ethical thinking consistent with British imperial priorities. This dependent relationship has shifted as English is now the dominant language in science and technology. In order to access an "IT rich" globalised economy culturally diverse communities require skills in English (McArthur, 1998, p. 210; Crystal, 1997, p. 101) The relationship between Dutch and English colonial and post-colonial languages in Indonesia is an issue which this project will also examine.

Relationship 2: communication and commodification

English is also the key global language spanning the communications and entertainment world in music, television, movies, road signs, business names and products, advertisements, hotels, civil aviation, shipping lanes, professional publications and computers (McArthur, 1998, p. 38; Crystal, 1997, pp. 95-97). This status guarantees its commodification. The importance of education for increasing the competencies of human resources has given English a new significance within the transnational marketplace. This includes its commodified value as intellectual capital, its research-based production, and its dissemination/acquisition through teaching/learning (McArthur, 1998, p. 16).

Relationship 3: transnational mobility and employment portability

A globalised economy is being increasingly typified by a migratory workforce requiring English language skills. There is a key relationship between ELT business and restrictive immigration laws that prioritise English language proficiency. A variety of culturally different peoples around the world have come to use their English language education as a virtual passport to secure transnational mobility, employability and in many cases permanent citizenship through immigration.

Relationship 4: social formation and cultural production

Within a global context English has been subject to local adaptation and change. English has been utilised for political purposes (hooks, 1994, p. 170). Neither Australians, Malaysians nor Indonesians use English the way the British did; they have had to domesticate it for their own purposes(Ridge 1996). English is used in these countries to access technical knowledge and for international communication. Elsewhere Rushdie (1994, p. 65) explains, "to permit two Indians [eg. a Northerner and a Southerner] to talk to each other in a tongue which neither party hates [eg. Hindi and Gujarati]. In this way English has a complex relationship in not only providing a vehicle for compliance but a platform for resistance as well. English is not only used to create wealth and effect control, but also to engage in social and cultural struggles. English is itself an important means of cultural production, a site of struggle over creating new uses and meanings. The appropriation of English involves its replacement with local cultural specifics as people seek new ways of saying things and new things to say (Thiong'o, 1994, p. 441).

1.6 THEORETICAL SIGNIFICANCE: ANALYSING RISKS AND TENSIONS IN THE ELT BUSINESS

The theoretical significance of this proposed project will be its attempt to theorise risk analysis and investigate emergent tensions in the ELT business (Phillipson, 1997, pp. 239-240). There are a number of risks with the ELT products and services, and the ways in which they have been utilised in different cultural settings of Australia, Malaysia and Indonesia (Ozog 1990). For the purpose of this project we propose to explore the following six risks and the related tensions.

Risk 1: Anglo-centrism

The production of standardised English ELT products and services maybe seen as being biased towards an Anglo-centric perspective which supports a political culture sympathetic to neo-colonialism (Pennycook, 1994, pp. 158-159, hooks, 1994, p. 172; Wilmoth, 1999, p.p. 15; Phillipson, 1997, p. 245). This positioning delegitimises the development of specific localised languages such as Australian, Malaysian and Indonesian Englishes.

Risk 2: failure to engage local contexts

An Anglo-centric perspective may limit the capacity to engage local socio-political and cultural contexts; ELT products may tend to be vacuous, materialistic, trivial and simplistic. The false assumption that ELT commodities are value-free leads to their inappropriate deployment in a range of culturally diverse contexts (Pennycook, 1994, pp. 151-152).

Risk 3: inappropriate teaching strategies

The ELT business may also be involved in the export of inappropriate teaching approaches and theories to culturally diverse settings. There may be ELT products traded on reflecting the problematic assumption of cultural neutrality (Pennycook, 1994, pp. 159, McArthur, 1998, pp. 79-80).

Risk 4: disempowerment

Possession of English language skills may allocate a position of relative power. Crystal (1997, pp. 12-20) observes the tendency to "cultivate an elite monolingual linguistic class, ... dismissive in their attitudes towards other languages." For instance, in Burma, "English is known as the 'killer language" (Phillipson, 1997, p. 243, Dogancay-Aktuna, 1998, p. 35).

Risk 5: endangering the languages and peoples "othered" by English

The ELT business could also hasten the disappearance of minority languages - and the people who speak them (Ozog 1993). It has the potential to make some languages (e.g Bahasa Malaysia and Bahasa Indonesia) and their endangered speakers seem unnecessary. Crystal's (1997, p. 17) expectation that up to "80 per cent of the world's 6,000 or so living languages will die out within the next century" means a considerable loss of people, history and identity. In this context bell hooks (1994, p. 168) reminds us that standardised English is "the language of conquest and domination ... it is the mask which hides the loss of so many tongues."

Risk 6: linguistic complacency

Related to the endangering of othered languages, the ELT business also risks linguistic complacency in so far as it undermines the motivation, opportunities and funding needed to learn other languages. The language of British colonialism deemed many languages as foreign and made outlaws of others (hooks, 1994, p. 169, Crystal, 1997, p. 16).

2. RESEARCH PLAN, METHODS, TECHNIQUES AND PROPOSED TIMING

The research plan will involve a selection of case study sites of approximately 15-20 ELT businesses in Australia, Indonesia and Malaysia. Case studies of these sites will be developed to provide comprehensive and systematic data on:

- ELT businesses, their services, products and processes associated with ELT markets.
- Develop some understanding of competence needed to work with transnational ELT businesses.

The case studies comprising of 10-15 ELT businesses in, Australia (Melbourne and Brisbane), Malaysia (Penang) and Indonesia (Jakarta) will consist of interviews as well as a general narrative and description of businesses and their activities. The data collected in the case studies will be analysed using a dilemma analysis technique.

2.1 Research methodology

Systematic case studies of the businesses and the issues facing educational managers and teachers engaged in the ELT business could provide useful information in not only identifying the nature of the market but the practices and intercultural competencies needed to work in a global context (Stace, 1997). Identifying the major managerial issues facing ELT businesses could assist in their development of sustainable platforms for their transnational operations. This study aims to provide managers of ELT businesses with data on the means to reduce some uncertainties; an international comparative business scan; knowledge relevant to business success and assistance for expanding their transnational markets.

The research team will apply a purposive sampling strategy guided by the research questions and conceptual framework for the study. A sampling frame will be produced to guide the selection of purposive sample of project participants and interviewees, and to map details relating to participants from each site. The sampling frame will indicate the nature of the interviewees and their businesses chosen in terms of their ethnicity, languages and cultural experiences; gender; age range; rural and urban location; and different educational experiences (Robson, 1993; Bryman & Burgess, 1994)

2.2 Research methods and techniques

Data collection for the case studies in this project will involve the use of:

1. Individual interviews. Interviews will be conducted in the relevant businesses with ELT business managers and teachers in Australia, Malaysia and Indonesia utilising both a pre-determined format and open-ended options. The fieldwork from Indonesia has been collected already; additional data for the project will be gathered during research being gathered in a related project. The interviews will combine opportunities for researcher driven enquiry and opportunities for framing issues from the participants perspective (Robson, 1993, p. 228).

2. Scanning and Documentation. This will involve collecting data in the form of observations, company documents, learning materials, annual reports, advertising material as well as a general summary of activities and programs of ELT businesses from each country to develop an impression of ELT businesses and the context in which the market operates.

3. Policy Documents. Business plans, curriculum, syllabi and government documents relating to the ELT business that creates the business and investment climate. This data also provides a policy context to formulate a scenario where risks and tensions can be examined.

2.3. Data analysis

Analysis of the data from the interviews and the scanning process will involve the use of dilemma analysis technique (Berlak & Berlak 1981). Matrices and charts will be developed as necessary to achieve the data reduction needed for interpretation and comparisons. Data will be categorised and coded according to emerging patterns around three issues:

- the interests at stake;
- the arguments of perspectives advanced, and
- any dilemmas that may arise.

Dilemma analysis (Berlak & Berlak, 1981) is selected because of its value in analysing interview transcripts and source material to reveal people's awareness of the tensions and contradictions in social reality. Some dilemmas arise from the contradictory demands and unavoidable pressures on ELT businesses and others result from the need for ELT businesses to undertake actions in a context where there is a lack of information or clarity about key issues. Dilemmas may present within ELT staff, within the organisation and between the organisation and its communities in a broader transnational context.

2.4. Theoretical significance

The theoretical significance of this project lies in its empirical testing of contemporary theorisations of globalisation. Much theorisation of globalisation has highlighted its economic dimensions, viewing it as a contemporary manifestation of neo-liberal economic thinking and practices across the globe (Wiseman, 1999). Accordingly globalisation refers to an emerging global economy characterised by market forces operating beyond the control of nation-states and enacted by new financial institutions such as transnational corporations and international banks (Ritzer, 1996).

Another view of globalisation emphasises the emergence of transnational spaces and processes as a replacement for the nation-state as a major framework for social life (Axford, 1995). Alternatively, the nation-state may be seen as serving as an important means for the creation of these systemic transnational properties, and thereby sustaining its own legitimacy, globally if not locally (Featherstone, 1995). We have seen in the past decade that the intensification of global capital has given the nation-state a new geo-political role in negotiating tariffs, communications, taxation reform, and environmental issues.

While these features of globalisation are increasingly debated, the relationship between the local and the global is also open to differing and contrasting interpretations. One view holds that globalisation involves the creation of a single, unified, homogeneous world system (Waters, 1995). Another view of the local/global nexus focuses on the specific and disjointed ways in which global flows of ideas, media, finance, technologies, people and risks affect and are affected by particular and diverse localities (Appadurai, 1996). Globalisation is, according to this view, a process that also creates hybrid forms of culture and organisation as global influences meet up with local traditions and conditions (Featherstone, 1995).

A third view, the one to be investigated by this project sees globalisation not only in the presence of global artefacts in the local, but also sees globalisation as a particular construction of locality (Morley and Robins, 1995). In this view processes of localisation are positioned as responses to and expressions of the processes of globalisation. This broader definition of globalisation focuses on cultural shifts and the manner in which social landscapes are transformed in a variety of uneven and chaotic ways, perhaps most noticeable in the rise of global cities and the decay of non-metropolitan, regional areas (Singh, 1998). This project seeks to analyse how this influences the products, practices and services in the transnational ELTS business.

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Vocational Education and Training in rural schools: education for the community

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INTRODUCTION

Rural high schools have expanded their programs in recent years to include vocational education and training (VET) courses (Chiswell et al forthcoming). While VET in schools programs were established primarily to address the needs of Year 11 and 12 students, there has been an unexpected interest and participation by adults in these programs in Tasmanian rural schools. This suggests that the schools are filling a previously unmet need in small rural communities.

Adults participating in VET in schools programs fall into two distinct groups. They are young adults who must undertake further training to be eligible for the Common Youth Allowance and mature aged adults who are seeking training to upgrade skills or enter the workforce. Time and cost of travel are major impediments to these groups, and Year 11 and 12 students who are undertaking study in a regional centre (Chiswell et al forthcoming).

This study examines three rural schools in Tasmania to understand why VET programs have been established, what makes them work, and the initial outcomes for students and schools.

The role of the schools in the study has changed to embrace lifelong learning for the community. Two factors have contributed to the change to the new role. First, the vision of school leaders and second, their success in implementing major changes that extend beyond the school. These changes have affected the perceptions of the school held by staff, students and members of the wider community.

BACKGROUND

Policy context and VET in schools

The Australian national vocational education and training strategy, *A Bridge to the Future* (Australian National Training Authority, 1998) states that to improve international competitiveness, to foster economic growth and to increase productivity, Australia must build its national stock of skills. Further, adults will be expected to update their vocational skills and to acquire new ones. The strategy recognises that access to opportunities for adults to undertake further education and training is limited for those living in rural communities, and states that initiatives are needed to offer learning pathways to equity groups, including people in rural and remote communities.

Vocational education and training in schools is recognised by national VET policy documents such as *A Bridge to the Future* as a way of addressing the training needs of young people making the transition from school to work.

Benefits for students associated with VET in schools programs include assistance with employment-related decisions, improved knowledge and understanding of industry and the world of work, increased self awareness, and improved personal and interpersonal skills (Misko 1999).

Research has identified a number of factors which foster and support VET programs in schools (Chiswell et al forthcoming, 4). They relate to commitment to VET reflected in the school's objectives and goals, availability of school and community resources, local development to meet local needs and partnerships with the community and other schools.

Educational disadvantages for rural students

Lower retention rates for rural students to Year 12 as compared with their urban counterparts contributes to a disadvantage for entry and completion of post compulsory education (Cunningham et al 1992, Lamb et al 1998). Factors contributing to lower retention rates for rural students include not valuing formal education, the need to travel to access final years of schooling in some states, curriculum which is not attractive to rural students, and lower expectations of academic achievement (Cunningham et al 1992).

Rural Australians are less likely to have post-school qualifications than those in metropolitan areas, and are less likely to have university level qualifications. Those people with lower levels of education experience more unemployment and are less likely to undertake further study due to lack of confidence in their ability as learners in formal training situations (Kilpatrick & Bell 1998).

Schools and rural community development

Rural schools are a central focus of activity within small rural communities, both for school-aged children and adults (Miller 1995). Indeed, closure of the local school can be a factor in the demise of small communities (Jolly & Deloney 1996). Schools can contribute not only to the education of young people, but also to the economic and social development of a local community. As part of the community development process, linkages between community members are fostered, allowing opportunities for the development of a community's social capital. Schools can play an important role in developing these linkages. As one of a limited number of institutions present in rural communities, schools have the potential to become a focus for building social capital through facilitating networks and sharing expertise with the wider community (Falk & Kilpatrick 2000).

Establishing VET in rural schools provides an opportunity to assist with the creation and enhancement of links between people living in rural communities. There is enormous potential for developing mutually beneficial partnerships between schools, local businesses and regions/regional industries. Leadership plays a major role in creating effective school-community partnerships (Johns et al 1999).

There are a number of innovative programs in Australia, jointly established by schools, local business and community members which have led to a reinvigoration of local economic activity and a re-engagement of local youth in meaningful work. In some localities, there has been a pathway established which leads students through school VET programs to post school training and into local industries (CRLRA 2000).

METHODOLOGY

This paper is based on data collected from several site visits and interviews with school principals, school VET coordinators, VET students, and a regional VET coordinator in rural Tasmania. Interviews were based on a semi structured questionnaire and were conducted in 1999 near the end of the school year. Questions were formed following identification of gaps in research literature on rural VET in schools programs.

Three district high schools were selected purposefully. The researchers were attempting to identify schools in small rural communities, with either a stable or declining population and limited youth employment opportunities which had established a VET in schools program. Each of the study sites selected was centred on a town population of less than 700 people in order to explore VET in schools programs in small rural communities.

ABOUT THE SCHOOLS AND COMMUNITIES

VET programs in Tasmanian schools are structured to provide nationally accredited qualifications and delivered by schools which are Registered Training Organisations (RTOs). The three schools selected were all located in northern Tasmania. The schools had between 150 and 500 pupils and between 14 and 30 staff. The schools were located in towns with populations ranging from 190 to 640. The major industries in the area surrounding the towns included forestry, viticulture, cropping, grazing, dairying and tourism. The distance to the nearest major regional centre ranged from 110 kilometres (study site 1) to 35 kilometres for study sites 2 and 3.

Study site 1 has now run the VET program for two years, with seven students enrolled in 1998 and 11 in 1999. The ages of students ranged from 16 to 40 years. At study site 2, the course has run for one year only with eight students enrolled. In addition, there were up to 30 students participating in the computing class, including mature age men and women. At study site 3 there were nine students enrolled in the VET program with ages ranging from 16 to 30 years.

The three district high schools offered a variety of VET courses. The schools delivered most of the courses, but also were auspicing agencies, providing support to students taking courses through other training organisations. The schools all demonstrated the development of some innovative partnerships with other schools and organisations, including a private community service organisation, to provide new opportunities for expansion of programs.

Two of the three schools underwent the rigorous accreditation process to become a Registered Training Organisation (RTO). The third school was working in partnership with two other rural schools to gain accreditation as a joint RTO. This process was seen to embed the 'cluster' arrangement, promoted by the regional coordinator. Clusters facilitate cooperation and sharing of resources amongst three or four schools within the same region, and give a wider choice of subjects for students.

RESULTS

Why do these schools have VET programs

In 1997, the Tasmanian Education Department funded a three-year project to employ regional VET coordinators covering all rural areas of the state. The goal of this project was to improve retention rates of students post Year 10 in rural schools. In Tasmania, most district high schools have not until recently offered Years 11 and 12. Students from these small rural schools had to move to larger regional centres to undertake the final years of schooling. In 1998, the retention rate from Year 10 to Year 11 in the northern region of Tasmania was 66.4% (Department of Education 1998). Retention rates from district high schools were lower than the average for the region.

Not all rural high schools in Tasmania have VET in schools programs. The establishment of VET programs depends on the initiative of school principals and senior staff in each school. There was little financial incentive to establish these programs. Even with the assistance of the regional VET coordinator, there was much work for the school to initiate such programs.

One motivator was the consistent and worrying pattern of students who left home, moved into the regional centre and subsequently 'dropped out' of senior secondary college within the first 3 months, to return home to almost certain unemployment or under employment. Up to 50% of students returned to their home town in two of the study sites before completing Year 11. The difficulties for the students and their families relate to relocation of 15 and 16 year old students to a new school in a large town. The Year 11 and 12 students who did enrol in VET programs at the schools tended to have poor literacy, numeracy, social and communication skills, suggesting that had they enrolled in senior secondary college they would have been at risk of dropping out.

The schools in the study have also seen a need to provide education for local adults. VET programs provide accessible education for two quite different groups in the local community. The first group comprises young adults receiving the Common Youth Allowance who were required to undertake further training to be eligible for the allowance. Enrolling in a VET program at the local school provided a means of undertaking training without the cost and time associated with travelling into town.

The second group was mature aged people in the local community who were either employed or involved in home duties and who were seeking further qualifications to develop new career opportunities or enter the workforce. This group had few opportunities for further training due to constraints of time, childcare responsibilities and/or existing work commitments to be able to attend courses in the regional centre. In the study sites, there were a number of adults enrolled in a VET course or a Tasmanian Certificate of Education (TCE) subject at the local school.

Opportunities and challenges for the schools

There was considerable enthusiasm from staff and students for the programs and for expansion in the future. The school principals and coordinators in the three study schools had a shared vision of playing a more strategic role in community renewal and development through partnerships with other schools, post secondary education providers and local business and local government. They communicated this vision to their staff, students, parents and the wider community.

In the short term, there was a recognition of the need to consolidate on the learning that had taken place since the first intake of students. In the medium to long term, senior staff from the study schools identified a number of opportunities including: establishing the school as the state centre for training in specialised horticulture, delivering employer sponsored training courses for employees, offering a wide rage of courses through online delivery, sharing resources with other rural based training organisations, and linking a number of schools-based Skills Centres to form a 'virtual' VET college to deliver courses nationally.

The challenges to growth and expansion related to resourcing within schools. The schools in the study reported a high turnover of staff, and indicated that the loss of one teacher can have a significant ripple effect on others' teaching loads. The development of credibility for the program with local employers depended very much on the relationships which were built by VET staff. Continuity of staff was important to ensure the relationships were maintained, particularly in the development phase.

A broad range of skills for effective delivery of VET were identified by staff. Indeed, it was clear that there was a need for a 'team' approach to satisfy not just the technical dimension of courses, but also skills in liaising and understanding business needs, adult education and teaching skills, and personal development and confidence building skills.

The need for the retention of a regional coordinator was identified as important to sustain momentum in the development phase of these programs. The need for a strong commitment from joint school and industry management committees was also identified. School staff indicated that these committees were not yet working to their potential. Communication of the vision of the school as a focus for learning for the whole community is an on-going challenge.

Outcomes

For all students interviewed, there were positive outcomes following participation in VET programs. The Year 11 and 12 students and the young adults claimed that they had gained specific work skills as well as personal self-confidence and self belief in their ability to enter the workforce.

For one student, it was the first time she had actually enjoyed her school experience. She reported that her attitude to learning had changed and she was able to make the link between learning at school and working. Graduates from the first year of the program at the one school now in its second year of VET had either found work or gone on to further study. Not all students were successful in their course. Those who enrolled only in order to be eligible for the Youth Allowance were most likely to drop out.

Though the numbers of students in this study were small, there has been a dramatic improvement in retention rates. In one of the schools, the post Year 10 retention rate has risen from 50% to 100%. The introduction of the VET program was attributed by students and the school as the reason for the increased retention rate. The programs have assisted schools to enhance their viability in communities where the local population was static or declining. Resource policies from the education system mean schools must retain and attract students in order to offer a broad academic program .

What made it work

The staff emphasised the importance of a commitment by the school and particularly the principal. There was a strong desire amongst staff to make the program work, even though it frequently required additional work. While local businesses were generally supportive of the program, through offering sites for work placements to students, the schools, not the businesses, were drivers for the development of VET in schools.

Building relationships between the VET staff, the school generally and local businesses is essential for the development the VET program. Establishing the credibility of the VET staff, the program and the participating students was an important element of this. One school trying to foster links with the local viticulture industry, for example, ensured that each local business owner or manager received a personal visit and information about VET.

Support from parents was necessary for the program to be successful. In one of the schools, several parents enrolled themselves in the first year to ensure there were adequate numbers for the program to commence. It was seen as important that the principal and VET staff understand the needs of parents and the students in relation to the students' home life, the students' capacity to cope away from home and parents' expectations of their children.

Small class sizes allowed teachers to provide an individualised approach to cater for different goals of each student. The ability to be flexible to accommodate individual needs was a strength of the program in rural schools. There was a recognition by staff that they were there to help develop the 'whole' person. Work on helping students build self esteem and confidence was considered as important as the development of work skills. The staff became 'mentors' for other aspects of students lives, offering help with both school and non-school issues. Staff acknowledged the difference between the VET group and other students by treating them as adult learners. This contributed to a view that the VET group was distinct from the main body of school students.

From the students' perspective, there was support for the teachers and their approach. They liked being treated as adults and thinking of the teachers as friends. They saw teachers as committed and enthusiastic. They commented on the importance of the practical nature of the study and for some, the ability to work and study outdoors (in the case of agriculture and horticulture). Staff and students saw the diversity of ages of students in the class as a positive benefit. The small size of the VET cohort and the fact that the students supported each other contributed to the sense of belonging. The mature age students commented on the ease of access to the classes, the low cost and the relevance of the courses.

The credibility associated with receiving a nationally recognised credential was important to the students and the schools. It gave the schools confidence to promote the VET program, with the knowledge that the Certificate's awarded to the students would be acceptable to industry as having equal status with Certificates gained through other training institutions.

DISCUSSION

The enthusiasm and commitment of the school principal and senior staff play a vital role in the establishment and development of VET in schools programs and enrolment of adult learners in rural schools. The programs met the immediate training needs of individuals and provided opportunities for lifelong learning in the three rural communities. The vision of school leaders (principals and senior staff) was to broaden the role of the schools beyond the education of school-aged children to be promoters of learning for the whole community. The communities have responded by embracing VET in schools in ways not encountered in urban areas.

Local employers recognised the benefits of partnerships with schools, one of which was a local skilled labour force trained through VET in schools programs. Partnerships evolve between schools and local employers, sometimes facilitated by local government, to expand school VET programs. Community, local government and local Members of Parliament recognised and supported the role of school VET programs in community renewal.

Rural schools use VET in schools programs to improve previously poor retention rates beyond Year 10 (Department of Education 1998). The programs have partially redressed the lack educational opportunities available to rural students. The need to travel to a major regional centre to complete Years 11 and 12 and the costs and time associated with this are a major cause for high drop out rates for country students (Cunningham et al 1992). There are limited educational opportunities for adults in the communities, reflected in low levels of post-school qualifications, low participation in the workforce and increased chances of under employment or unemployment (McClelland & McDonald 1999, Curtain 1999, Lamb et al 1998).

In this Tasmanian study, the programs were meeting the educational needs of several groups in the community in addition to Year 11 and 12 aged students. Young adults required to undertake training to receive the Common Youth Allowance, but unable or unwilling to travel to a regional centre had enrolled in the VET in schools program. Mature age students wanting to update their skills to gain entry to the workforce also enrolled at the schools.

There were clear benefits for the individuals who participated in the program. The key benefit identified was that the individuals gained self confidence and bolstered their self esteem before entering the workforce. The supportive nature of the program delivery was principally responsible for this. There were also the more obvious benefits including gaining training while still residing at home and having access to practical work-based education which enabled participants to link learning at school to working.

Students who would otherwise have left school to an uncertain employment future have continued their education. Similar benefits were identified by Misko (1999), but personal development was more important for the rural students here than in Misko's study. For mature aged students, ease of access and low cost provided an opportunity to gain new skills to enter the workforce.

The programs have assisted schools to offer a broad academic program at the school by raising student numbers and attracting staff with a range of skills. In addition, the presence of adult learners was a positive influence on school culture, providing valuable role models to younger and less motivated students.

The factors identified for successful provision of post-compulsory programs for both adults and young people in rural schools were: commitment and enthusiasm from teachers and senior staff; ability of the school to involve the local community, a supportive educational environment; a school culture that recognises and values adult learners; and the flexibility to cater for individual needs. All of these factors can be linked to the professional expertise of the school staff and the skills of the school leaders in sharing their vision with the community, both within and outside the school. These are consistent with Chiswell et al's (forthcoming) conditions for the success of VET in schools programs which emphasise commitment of the school and partnerships with the local community.

The schools identified a number of areas for expansion of delivery to post-school aged students. On-line delivery and linkage with school based 'skills centres' was seen as an important avenue for development. This would facilitate auspicing of programs offered by other providers, thus giving students in a much greater range of programs the support needed to ensure success (Kilpatrick & Bell 1998).

CONCLUSION

VET programs in rural Tasmanian schools are filling a previously unmet need for education from adults and young people of post-compulsory school age.

Expansion of the role of the schools was resource intensive. This research noted the value of appropriate teacher styles and relationships with the students, highlighting the need for professional development of teachers unfamiliar with working with adult learners. As well, professional development of teachers and VET coordinators to develop skills for interacting with people in the workplace and developing networks in the local community was required. Many of the things that make the program work were related to small, resource intensive, class sizes.

The impact of the VET programs on the community and local businesses is an area for future research. VET in schools programs increase the contact between schools and the community beyond traditional forms of association. This development of new networks plays an important role in building social capital in local communities (Falk & Kilpatrick 2000). Making school resources and expertise accessible for use by community members through community education programs provides an important means of building new relationships with adults in the broader community. The experiences, expertise and role modelling they bring into the school environment will assist in changing the nature and role of rural schools, making them even more relevant and valuable to their communities.

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Contributions of VET to regional communities

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INTRODUCTION

What contributions does vocational education and training make to social and economic needs in regional communities? This paper reports some findings from the Centre for Research and Learning in Regional Australia's ANTA funded project *Managing Change Through VET: The Role of Vocational Education and Training in Regional Australia*.

Many communities in regional areas are being forced to change as a result of a decline in income from agriculture and withdrawal of government, banking and other services (Productivity Commission 1999, Houghton 1997). Work on the learning society emphasises the link between learning and responsiveness to change (Schuller & Field 1998, Young, 1995). Adoption of new ways of thinking and new ways of doing things are learning processes during which people, individually and as groups (including communities), develop new knowledge, skills and values (Kilpatrick, Bell & Falk 1999). Learning assists in managing change by building on accepted knowledge and practices (Lundvall 1992). Cranton (1994) suggests that change can be triggered by new information which conflicts with an individual's previously accepted knowledge. A learning process follows during which values change and the new information is accepted.

The purpose of this paper is to investigate the role VET can play in helping communities manage changing economic and social needs. Economic needs are taken to include income-generating activities such as employment, self-employment and running businesses. Social needs are taken to be the non-economic aspects of wellbeing, including health, and cultural, community and other social activities. We acknowledge these needs are interrelated.

The scope of VET covered in this project is: structured training and assessment under the Australian Recognition Framework (formal VET); training which is structured, but not under the Australian Recognition Framework (nonformal VET); and training which occurs incidentally, as people go about their daily lives (informal VET). While this paper draws on data collected in regional communities, it is possible that the findings would also apply in metropolitan areas.

METHODOLOGY

Data were gathered through individual or focus groups interviews with a total of 466 people from seven regions. Questionnaires were also completed by most interviewees. Interviewee selection was informed by the five objectives in *A Bridge to the Future: Australia's National Strategy for VET 1998-2003* (ANTA 1998). These objectives were used to identify specific issues and groups as foci for the different sites. For example, the purposive sampling strategy deliberately sought respondents from four groups in each of the seven regions: organisations concerned with formal VET provision; employers; representatives of community organisations; and finally learners or community members. Questions sought information and perceptions about:

- changes in the community and their impact on individuals and organisations;
- recent VET experiences focusing on their contributions to social and economic wellbeing;
- interactions related to VET among individuals, enterprises, VET providers, and community organisations;
- people's perceptions about future VET needs.

Interview data were analysed using a combination of NUD*IST, thematic analyses and ethnomethodological analyses using a range of techniques. Standard statistical procedures were applied to the questionnaire data.

CONTRIBUTIONS OF VET

The wide range of contributions that VET makes to regional Australia are grouped into two categories: contributions in terms of 'capacity-building' outcomes for individuals and communities, and more 'tangible' or realised outcomes, in relation to employment and community activity. Human capacity in terms of skills and confidence and community capacity, including networks and the ability to have vision as a community, have been identified as essential for community economic development (Allen 1999, Ekins & Newby 1998, Kretzmann & McKnight 1993).

Capacity

Findings from the seven study sites indicated that capacity building gave individuals and communities the knowledge, skills and attitudes to better manage change. The data identified four main areas in which VET helps build capacity within communities: skill acquisition, promoting self-efficacy, networking and support, and job readiness. These capacities are drawn on as more tangible outcomes are realised.

Skill acquisition was referred to in over half the interviews and self-efficacy, networks (or interaction) and job readiness were mentioned as outcomes of VET in over 20%. While skill acquisition and job readiness may be considered planned outcomes, self-efficacy and networks of interaction were often incidental outcomes, although a third of those surveyed who were enrolled in a course had done so at least partly for personal development reasons. The 'incidental outcomes' were highly valued by participants and employers.

Generic skills can be used across boundaries of tasks, for example communication and organisational skills. Specific skills are not generally transferable across tasks, for example fish feeding or applying chemicals. There were frequent mentions of generic skills acquired through training intended to develop specific skills.

Aspects of increased self-efficacy include confidence to socialise, increased self-esteem, confidence to speak in public, confidence in ability to do things, and confidence to try something new. When individuals have gained both skills and self-efficacy they are better equipped to assess and find ways of meeting their social and economic needs.

As individuals and communities go about learning in a variety of informal, nonformal and formal VET contexts, opportunities for networking, interaction and support occur. Such interactions are important as they may: fill a void in small communities which offer few other social or employment opportunities; contribute to individuals' positive perceptions of their abilities and value to the community; help alleviate negative community perceptions of isolation and remoteness, and contribute to community cohesiveness by bringing together sometimes diverse groups within the community to work together to achieve common goals.

Youth in particular, benefited from VET programs that prepared them for the world of work. Their 'job readiness' meant they were more likely to stay in their community because they were able to secure employment, thus building up valuable community resources. This is in contrast to the drain of rural youth to cities common in much of Australia (Wahlquist 1999).

Employment-related and community activity outcomes

Tangible outcomes that extended beyond capacity building were related mainly to employment or community activity. Other tangible outcomes identified included VET graduates teaching others, or continuing with further education and training. Just over a quarter of all interviews mentioned at least one realised, tangible outcome from VET, mostly employment-related.

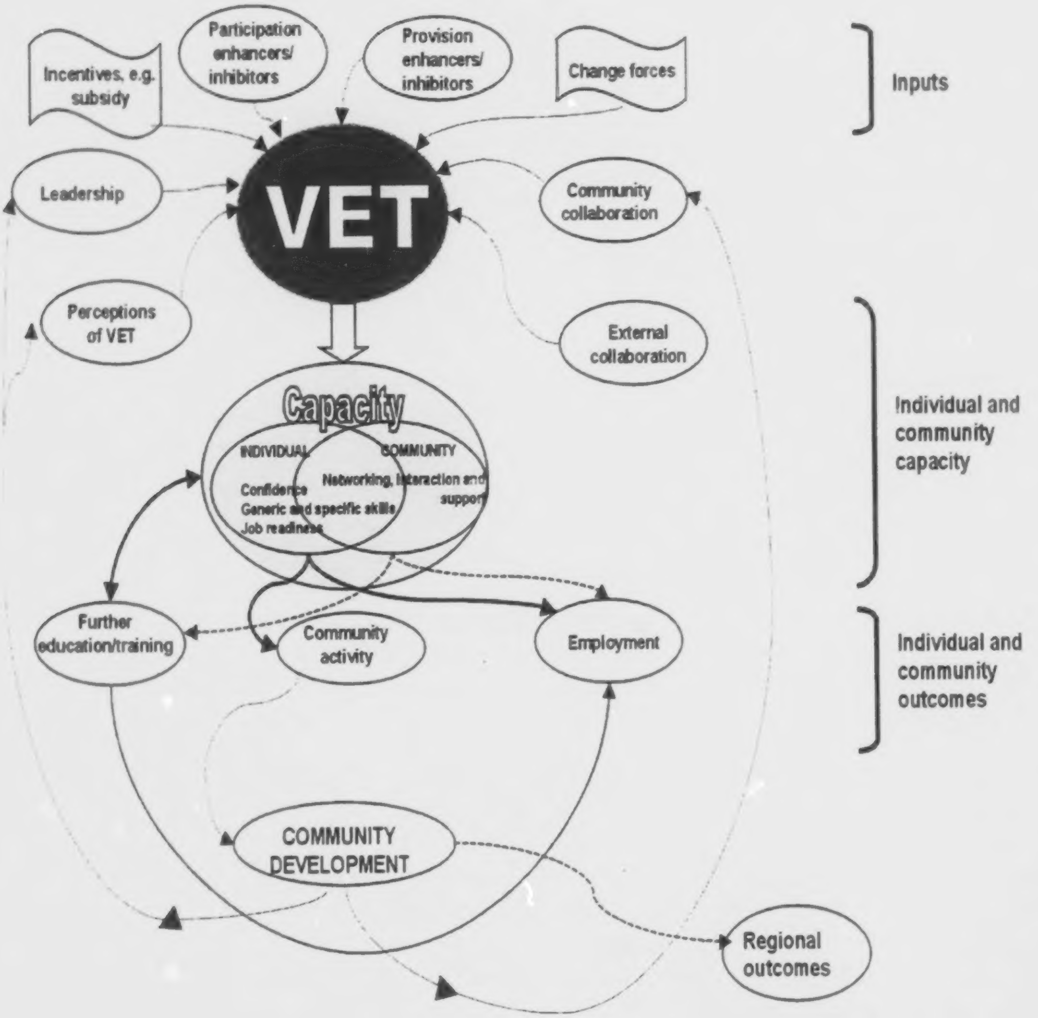
Over half of those who had enrolled in a VET course had done so for professional or vocational development reasons, consistent with most of the outcomes reported being employment-related. Employment-related outcomes included obtaining a job, starting a business, employing others and improved performance in an existing job. A match between training in emerging or expanding local industries and employment was observed at most sites. That is, training that met the economic needs of the community was more likely to lead to jobs.

The second major group of outcomes related to community activities. These were either an individual contributing to the community in a way he or she had not contributed previously, or whole-community benefits. Collectively these activities are known as community development. Some of these outcomes were economic activities that had spin-offs for the whole community, others were events such as festivals and ceremonies that enhanced the social cohesion, and met the social needs, of the community.

CAPACITY TO OUTCOMES

Figure 1 below illustrates the process whereby VET contributes to employment and community outcomes by building capacities. It shows that capacities are drawn upon in the production of outcomes for communities and the individuals who live in them.

Figure 1: VET's contribution to regional communities


Incentives, e.g. subsidy
Participation enhancers/ inhibitors
Provision enhancers/ inhibitors
Change forces
Inputs
Leadership
VET
Community collaboration
Perceptions of VET
External collaboration
Capacity
INDIVIDUAL
COMMUNITY
Confidence
Generic and specific skills
Job readiness
Networking, interaction and support
Individual and community capacity
Further education/training
Community activity
Employment
Individual and community outcomes
COMMUNITY DEVELOPMENT
Regional outcomes

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The diagram also shows the factors that influence the extent to which VET is effective in contributing to regions, communities and individuals. The influencing factors identified in this project are leadership, individual and community perceptions of VET, participation enhancers and barriers, provision enhancers and barriers, collaboration or partnerships within the community, and external collaboration or partnerships. Exogenous factors including change forces and policy incentives and inhibitors (for example, subsidies) can also influence the extent of VET's contribution to communities.

The following four vignettes show how VET contributes to individuals, communities and regions by building capacity, and how the capacities result in tangible outcomes. They highlight some of the factors that influence capacity building and the ability of communities to turn capacities into outcomes.

Spin-offs from skills development

The first vignette tells how an employer in the orchard industry arranged for training that has benefited not only those who participated and their initial employer, but also other employers in the orchard and other industries, and so the wider community and region.

Skills not present were acquired by engaging a provider from outside the community:

> *Respondent:* We got people in from the TAFE [in another town].
> *Interviewer:* And so none of that training was available locally?
> *Respondent:* No, no that was a scheme I thought up...

The newly acquired skills enhanced the capacity of the individuals and the business. Outcomes followed in the form of employment and promotion for the individuals who trained and reduced staff turnover:

> Some of those people that were on the first training course are now key personnel, they are a leading hand, supervisors and that...there's a lot of people that have benefited from it.

The capacity of other employers, industries and available skills in the community as a whole, grew:

> They've gained employment not only for this industry but it's actually gone into other industries...

Further outcomes of the VET course were better performance on-the-job for the initiating employer and other industries in the region:

> [they've] not only [benefited] myself here but they have moved to other sheds, farms and they've got the ability to walk in and do a job. So it was very beneficial not only to this industry but to other industries as well.

One employer taking a leadership role by initiating training has led to increased capacity and tangible outcomes for the whole community. The outcomes were achieved through drawing on resources external to the community (a TAFE).

Bitten by the learning bug

The second vignette is about a woman who found that a typing course gave her the self-confidence to go on to university. She went on to do three different kinds of voluntary community work (domestic violence counselling, army cadets and tourist work) and undertook other training to gain skills for her voluntary activities. This extract describes only a part of her training and community work journey.

Her journey started with a 'push' from government welfare policy:

> I was on sole parent benefits and [CES] were suggesting go and get some skills to enable you to get back into the workforce...

The course built her personal capacity, particularly her self-confidence. From the course she got:

> ....the confidence to get back out into the world....I'd been out of the workforce for a fair while and didn't really need to [work], but then when I found myself alone raising two children, my confidence was-I just didn't have any...I didn't have a social network of people...

Her capacity grew as she learnt new communication skills, but it was self-confidence that enabled her to enrol at university:

> I'll tell you what else came from that [increased confidence]-the fact that I'm going to uni now... We learned communication on the phone, and one of our exercises was to ring a university and just ask for some information. And all little things like that got me thinking ...it was only six months later that I was enrolled at uni...If I hadn't done that I'd probably still be here wondering what I was going to do with my life...

Her university studies led to training in counselling, and these skills resulted in a tangible outcome, voluntary community work that benefited victims of domestic violence:

> ... at that point they were setting up the court support systems for victims of domestic violence. And they actually trained a fair few of us to do voluntary work down there...I'm still on the advisory committee...[We] are still trying to set it up to run better all the time...

The woman plays a leadership role through membership of the advisory committee; leadership skills available to and used for the community are a further outcome of her education and training journey.

She went on to describe becoming an adult leader in the local army cadet unit, and training provided by the army, then talked about another voluntary community role and its associated training:

> I did some voluntary work with [local tourist centre] and they run the Aussie Host course. And because when I'm in the office I'm dealing with people that come in, I felt that it was important for me...to have their training. So I did it and learned a lot from it. It's a good course more about people skills and dealing with people...

She had a very positive perception of VET, and so completed the Aussie Host course and acquired more skills (capacity) which have a community activity outcome. It is not difficult to see from the interview transcript that the community's tourist industry benefits economically from having her many generic and job-specific skills in the tourist centre. Her community has many reasons to value the capacity building contribution of VET.

Seniors in cyber space help their community

This project was initiated as a community activity by the local Council and Library staff, who secured funding. They located existing capacity in the community (computer skills), and arranged training that built further skills:

> *Senior citizen:* They asked me whether I'd be interested in joining their group and to see if we could put some Web pages on the Net...the group comprised of about 25 people over 50, and then because [a member] and I knew a little bit about computing, we were asked if we would assist with designing pages...
>
> *Library staff:* We actually gave them a little bit of a crash course, with Internet...because a lot of them had never really touched a computer before and certainly never accessed the Internet...

The capacity of the senior citizens grew as they developed a support network. In an example of fostering distributed leadership in the community, the Library staff gradually handed the project over to the senior citizens as their capacity (skills, self-efficacy and networks) developed. The Web pages were one tangible outcome, another was that the senior citizens passed their newly acquired skills on to others in neighbouring communities, building the capacity of the region:

> *Library staff:* [It] was a matter of getting them comfortable enough, to that level that they felt able to demonstrate to other people without us holding their hand...They grew to depend on each other as a group...[their] skills were quite varied but they are very willing to share....they actually support each other a lot better because they've had that social interaction.

> *Senior citizen:* We did demonstrations at [two small rural towns] and they are very, very interested there, and they've also put up Web pages.

The project built social cohesion by bringing old and young people together to share information and skills.

> *Library staff:* We took two car loads of people from that group [to rural town A], and we...showed [the Web project] to school children...that was the real intergenerational stuff...you had these Year 9, 10 and 11 kids standing there talking to a 75 year old man about htmls and jpegs...We just wandered to the background and let them take over. And then we had the older people that came in the afternoon, and the response was terrific.

The outcomes of the project included improved health for at least one member of the group. The Library staff conclude by describing the value of the capacity in the form of networks that the project and training the Council and Library staff initiated:

> *Library staff 1:* One gentleman...he had had a stroke,...and his confidence at the start of the project was almost like 'I don't think I can cope with this'. He was one who came to all of our outreach visits,...I look at him and I think, well his confidence and his fighting: this whole thing has really, really helped him along.
>
> *Library staff 2:* They go to other clubs and other organisation meetings and they all have this get together and they just talk about [the Web project], it's become a real togetherness thing, and it's a real prize.

The outcomes of VET were not only a frequently used Web site and use of Web for personal benefit, but capacity. The capacity (skills, self-efficacy and networks) meant that skills were passed on to others in neighbouring small rural towns, who went on to build their own Web sites. Ongoing networking means this community now has the capacity for further collaborative development.

Collaboration, distance and lack of jobs

A regional VET-in-schools program in an area of high youth unemployment is the subject of the final vignette. The outcomes here are not as rosy as those in the first three vignettes, and there were more barriers to be overcome.

A consortium of five schools works in partnership with a Job Pathways Program, two group training companies, the regional TAFE and its local outreach centre. The region has suffered from the decline of a resource-based industry. There is an extremely high unemployment level, particularly among 15-19 year-olds, but also difficulty in filling jobs, which suggests a lack of 'job readiness' among the young people. It is hoped that the VET-in-schools program will add to the capacity of the region by providing a pool of 'job ready' workers:

> *Group Training Company:* I don't know whether the kids in general think that there's not much happening out there, so they don't look too hard, or they just have in mind to leave the area because there's nothing offering. So when we have got a job going particularly in the rural side of things where the work might be a little bit more demanding we could advertise for months on end and perhaps get no one that's suitable....I'm hoping that school-based new apprenticeships will actually give us the opportunity to get some of these kids,...and give them a go in some of these workplaces so that they can become full-time employees...

Program offerings have not yet been matched to community employment needs:

> *VET-in-schools coordinator:* The cluster has tended to adopt a smorgasbord type of approach ...and then we run with the ones where the numbers are viable....areas such as Retail Studies, we only have two students,...and yet the statistics tell us that it's an area that we should be really developing. But it's a case of we haven't been able to sell it successfully to kids yet.

Despite this, the skills acquired have led to employment outcomes, and to capacity building through further study:

> *VET-in-schools coordinator:* The data that we have been able to collect suggests that we're having a very high success rate....[but] there might be kids who went on, perhaps to further study at the end of doing a VET course, who subsequently have dropped out of education and may not be employed...

There have been barriers to overcome, particularly distance:

> *VET-in-schools coordinator:* We have been working on a range of delivery techniques here because of the distance factors so that we deliver some of our programs by video-conferencing. We also are experimenting with taking the tutor to the students in some instances, and that's supplemented by some special CD materials and also Internet material...The reality is that we can't get students who want to do Hospitality Studies from [Town A] readily into the one TAFE College at [Town B].

Government policies that have reduced government infrastructure and encouraged competition rather than collaborative approaches have made it more difficult to find work placements, made it more difficult for VET to build capacity, and for that capacity to be translated into outcomes:

> *Trainer:* This town...never really recovered from the gutting of the government infrastructure...We had a shire complete with all its staff, engineers, town planners, accountants, health inspectors, building surveyors and the thing is that's been replaced by Business Centre with somebody answering the phone...the shire used to take work experience students, it provided chances for school leavers...
>
> *VET-in-schools coordinator:* We tend to ignore government policies which we see as inhibiting our program, and just go round them...The education system at the moment is competitive and [Town C] school will do everything to try and reduce the number of students travelling into [Town B]...To keep all the players working together for the common cause and with a common agenda, that's a constant thing we have to work at.

This vignette has evidence of capacity building in difficult circumstances (skill acquisition and job readiness). Cooperation amongst a number of players in the region has overcome some of the provision barriers created by distance, external economic factors and the effect of government policy on the towns in the region, but further cooperation could improve outcomes.

CONCLUSION

VET is responsible for tangible employment-related and community activity outcomes. The way in which VET contributes to outcomes in communities is by building capacities. Some of these capacities build new knowledge and skills directly. More importantly, VET builds self-efficacy and networks which facilitate a challenging of values and attitudes (Kilpatrick, Bell, & Falk 1999, Cranton 1994). Learning is only translated into new behaviours after values and attitudes change. Taking control and managing change requires communities to be proactive in adopting new behaviours. VET's capacity building through increasing self-efficacy and building networks is its major contribution to the success with which regional communities manage change.

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"I am still studying, I just have not finished" — Research into the reasons for student non-completion at OTEN-DE

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ABSTRACT

OTEN-DE, like other educational providers has long been concerned with their student attrition rates. Distance education providers traditionally have higher non-completion rates than their face-to-face counterparts and this is of some concern as one of the key performance indicators for VET providers now include module completion and non-completion rates.

Changes in federal and state educational policy have resulted in a very competitive educational marketplace, where providers vie with each other for students and resources in an increasingly stringent fiscal environment.

This research project was designed primarily to identify the factors which cause OTEN-DE students to effectively 'drop-out' and not complete their course/modules after enrolling and receiving their learning materials.

This paper reports on the findings of a survey of a sample of 'non-working' and 'barely' working students who enrolled at OTEN-DE in 1999.

INTRODUCTION

Snapshot of OTEN-DE

OTEN-DE is part of the NSW Education and Training portfolio specialising in distance and flexible delivery of vocational education and training programs for NSW TAFE, industry and schools.

OTEN-DE is the largest provider of distance and flexible vocational education and training programs in Australia with 33,000 students enrolled in over 800 fully accredited subjects and modules. There are approximately 250 courses offered - ranging from traditional business and marketing courses, engineering, building, information technology to beekeeping, optical dispensing, maritime engineering, fire fighting and horticulture.

At the time of the survey, OTEN's Open Learning Program was organised in the following four Faculties, Access Programs (e.g. pre-vocational subjects, HSC), Business Services (e.g. marketing, real estate, accounting), Service Industries (e.g. information technology, horticulture, environmental subjects, hospitality) and Production Industries (e.g. engineering, building, maritime studies, fire technology)

Student attrition rates in Distance Education

Student attrition is of special concern to distance educators because it is generally acknowledged that the rate of attrition is higher than that for face-to-face education providers. Case and Elliot (1997) state that student attrition is the major problem facing higher education institutions today, particularly distance education providers. Significant numbers of students who commence studying distance courses fail to complete them Thompson (1984). Rates of drop-out in distance education vary anywhere from 30% to 70% Garrison (1987).

Zajkowski (1997) gives an indication that average completion rates of distance students are evenly distributed between 29% and 68%. However, it is difficult to compare figures for different institutions, due to differences in how institutions calculate completion rates, and the differing nature of enrolment, support and assessment arrangements.

Within the NSW TAFE system OTEN-DE's module completion rate is traditionally lower than other on-campus Institute providers.

Factors affecting student non-completion

There is quite a considerable body of research on issues which affect students persistence in a distance education mode. Robinson (1981) refers to problems of time management, lack of study skills, feelings of isolation, alienation and a range of personal issues such as family commitments. Edge (1982) suggested that non-persistence resulted largely from 'life factors' which affected students and therefore outside the control of institution. Keegan (1986, p174) identified the 'pull' and 'push' factors in relation to student drop-out. A 'pull' factor is one which draws the student away from the course, such as change of job, personal reasons etc. They are external to the institution and are therefore outside the control of the institution. A 'push' factor relates to matters 'internal' to an institution such as their teaching practices, course materials etc. which can negatively affect student continuation. These 'internal' factors are able to be controlled and modified by the institution.

Couts (1994, p89) suggested 'many students withdraw for personally positive reasons such as beginning a new job or the opportunity for further training in the course of their choice'. Brindley (1988) demonstrated that both completing and non-completing distance education students experience similar negative/positive experiences during study. Garland (1993) took this further to conclude that the decision to persist or not to persist, is an idiosyncratic one, depending on the interpretation of that experience by the individual in their particular environment.

Couts (1994) maintains that identifying the cause of drop-out is difficult, given the complexity of the facts involved, but nevertheless advocates the importance for institutions to investigate the causes of student attrition in their institutions and develop their own institutional policies and strategies to minimise attrition rates. This is the reason why this particular research was undertaken at OTEN-DE.

There are various approaches which can be taken to look for explanations for attrition in distance education. Researchers have looked at profiles of their students to identify factors for 'at risk' students; others have looked at their courses to identify the features which are associated with high completion rates. Another approach, and one which has been taken by OTEN-DE, is to ask the students themselves for the reasons behind their decision not to complete their course/modules.

RESEARCH PROJECT

The aim of this research project was to identify the factors which cause OTEN-DE students to effectively 'drop-out' and not complete their course/modules, after enrolling and receiving their learning materials.

Specific objectives

1. Determine the relative importance of the following eight factors in the students decision not to complete their studies:
    - employment
    - family or personal reasons
    - change to another study option
    - course delivery
    - problems with teachers and/or assignments
    - course content and/or materials,
    - feelings of confidence or motivation
    - study by distance mode
2. Determine the students expectations on enrolment
3. Determine at what point the students decided not to proceed with their studies

4. Determine whether the student thought OTEN-DE could/should have done more to assist them to complete their studies
5. Determine whether the student would consider studying with OTEN-DE in the future
6. Obtain general feedback about OTEN-DE
7. Acquire insight into the particular mix of internal/external factors which contribute to student drop-out at OTEN.

RESEARCH METHODOLOGY

Population

The population was defined as all OTEN-DE students newly enrolled in 1999 who, by the end of October 1999, had submitted one or no assignments for the whole of their course. The population excluded the following:

- re-enrolled students
- all commercial courses and two literacy courses
- courses which did not require assignments
- students living outside NSW/ACT
- students who had already formally withdrawn from their course
- students who had submitted more than one assignment for their whole course

A population of 8997 students matched the above criteria.

Sample

A random sample of 3000 (roughly 1/3) stratified by Faculty was selected for study. 70 (2.3%) of the sample were found to be in Corrective Services Institutions and were excluded from the survey as they could not be contacted.

Survey Method

A questionnaire was designed to measure the relative importance of the above factors. The respondents were asked to nominate the main reasons which influenced them in deciding not to complete their course/modules. Respondents were free to nominate more than one factor if appropriate.

Both mail and telephone survey methods were used to administer the questionnaire to the sample. OTEN-DE sent out 1565 surveys by mail to Business and Services Industries students and 1365 students from Access Faculty and Production Industries had the survey delivered by a Telemarketing company whose staff had been well briefed

RESULTS

In total the survey had a 26% return rate, 765 responses. The mail survey had a 22% return rate, the telephone, a 33% return rate. 22% for a mail survey is low, but is fairly typical of questionnaire return rates in distance education research. Neuman (1997) states that a response rate of 10% to 50% is common for a mail survey of distance education students. With the phone survey, only 33% of the students were able to be contacted (numbers disconnected, answering machines, students moved on). Only 31% of those contacted resulted in valid surveys.

Despite the low return rate, it can be argued that the profile of the survey respondents matched the profile of the sample for gender, qualifications gained since school, employment status, disability, Aboriginal or Torres Islander and Austudy. The Business Services Faculty was slightly under represented, the Access Programs Faculty slightly over represented. Data on age and geographic location for the sample is currently not available, however they do match the profile of the typical OTEN student. The data for age and geographic location for respondents was 42% in the range

25-39 years, 53% of respondents were from the Metropolitan area, 43% from the country and 4% other. The majority of students were English speaking for both sample and survey respondents.

SUMMARY OF RESEARCH RESULTS

For the eight factors relating to reasons for non-completion of course/modules:

1. 45% of respondents cited job related reasons
2. 56% of respondents cited family or personal reasons
3. 19% of respondents cited changing to another study option
4. 19% of respondents cited reasons related to course content/materials
5. 11% of respondents cited reasons related to course delivery /administration
6. 10% of respondents cited reasons related to problems with teachers and/or assignments
7. 25% of respondents cited reasons related to confidence and motivation
8. 20% of respondents cited reasons related to studying by distance mode

For information relating to studying with OTEN-DE

- 87% of respondents enrolled with the goal of finishing the course
- 18% of respondents thought OTEN-DE could/should have done something which would have assisted them to continue
- 91% of respondents would consider studying at OTEN-DE in the future
- 42% of respondents stated they were intending to finish their course.

KEY FINDINGS

1. Job Related Reasons

45% of respondents stated that the reasons for non-completion related to their job (n=765, m=13). 29% stated they found their job too demanding of their time. 53% of males, compared to 39% of females cited job-related reasons which is statistically significant at 0.005 level.

QUALITATIVE DATA

There were 114 written responses to this question. Approximately 20% of the respondents gave 'personally positive reasons' for non-completion e.g:

> I moved into a supervisory role. I am now interested in doing an HR/Supervisor Managers course through OTEN-DE.
>
> I went from p/t to f/t and then got a promotion.

The majority of the others explained difficulties associated with their jobs

> My job was too stressful, and I was too tired to study my course when I had free time.
>
> I work at three jobs.

2. Family or Personal Reasons

56% of respondents cited family/personal reasons for non-completion (n=765, m=17). 44% of males compared to 64% of females cited family/personal reasons. There is a statistically significant relationship between these two variables. 33% of respondents who answered yes to reasons related to family/personal, also answered yes to reasons related to job. 59% of respondents who answered no to reasons related to family/personal answered yes to reasons related to job. 41% said no to both job and family/personal reasons

QUALITATIVE DATA

There were 187 written responses to this question and the majority were associated with the areas of 'major life changes' which ranged from domestic violence, death of family members, weddings, pregnancies, births, marriage breakups, moving house, accidents, gender reassignment, major illnesses, custody battles over children.

3. A change from OTEN-DE to another Study Option

19% of respondents nominated this as the reason for non-completion (n=765, m=4). 10% of respondents stated that they had changed to a TAFE face-to-face college.

QUALITATIVE DATA

There were 80 written responses to this question. 25% of responses were about changing from OTEN-DE to face-to-face mode at their local TAFE college, 13% of responses indicated that students were doing a university course, sometimes at the same time as an OTEN-DE course, 8% of responses indicated students were co-enrolled with OTEN-DE and their local TAFE and a small percentage of students were returning to school or taking up traineeships.

4. Reasons relating to the way the course was delivered/administered/run by OTEN-DE

11% of respondents nominated reasons for non-completion related to the way the course was delivered by OTEN-DE (n=744, m=21).

QUALITATIVE DATA

There were 57 written responses to the question. Approximately 35% of the responses were related to learning materials arriving late, materials missing. Other responses covered difficulties getting textbooks on interlibrary loan, problems with recognition of prior learning for subjects/experience.

5. Reasons relating to problems with teachers/assignments

10% of respondents nominated reasons related to problems with teachers and/or assignments for non-completion (n=744, m=21).

QUALITATIVE DATA

There were 43 written responses to this question. 28% of the responses related to problems with assignments, too long, too hard, difficulties with deadlines. 40% of the responses related to difficulties with contacting teachers.

6. Reasons relating to course content/materials

19% responded yes to this question (n=742, m=25). 8% stated the course was too hard and 5% stated it was not what they expected. 4% stated that the course materials were too overwhelming.

QUALITATIVE DATA

There were 62 written responses to this question. The responses ranged over all aspects of course content. Some examples are:

> I found the course too hard to read. Too much tertiary jargon without a page for dictionary.
>
> The course was too easy.

7. Reasons Relating to Confidence/Motivation

25% of respondents nominated this as a main reason for non-completion (n=741, m=24). 14% of respondents stated they had difficulty organising their time.

16% of males answered yes to this question compared to 31% females, there is a significant relationship between gender and feelings relating to confidence/motivation

8. Reasons Relating to Studying by Distance

20% of the respondents stated that the reasons for non-completion related to studying by distance (n=734, m=31). 13% of respondents stated that they missed staff/student interaction.

Of the 80% who stated that non-completion did *not* relate to studying by distance, 70% (approx. 400 responses) stated positively that distance study suited their lifestyle (n=765, n/a 199).

STUDENTS EXPECTATIONS ON ENROLLING

87% stated their goal was to finish the course on enrolling (n=753, m=12). 14% stated they thought distance education would be easier than face-to-face courses.

AT WHAT POINT DID THE STUDENT DECIDE NOT TO PROCEED WITH THE COURSE?
18% stated they decided not to proceed when they first received their learning materials (n=742, although the majority of respondents preferred to answer this question as a written response. There were 399 responses, and most referred back to the answer they had given in the first part of the questionnaire ie job, personal/family etc.

IS THERE ANYTHING THAT YOU CONSIDER OTEN-DE COULD/SHOULD HAVE DONE WHICH WOULD HAVE ASSISTED YOU TO CONTINUE YOUR COURSE?
18% of students responded yes to this question (n=727, m=38)

QUALITATIVE DATA
There were 141 written responses to this question. Approximately 25% were concerned with how to improve communication and feedback with teachers, other responses requested clearer information and reminders about when work is due, more time to complete course, help in getting textbooks.

Some examples of responses:

> If students don't hand in assignments it would be great if OTEN-DE could give us a call and see if there are any problems.
>
> Internet interaction with students and staff.
>
> Motivate students. Have a hotline or something like that.

WOULD YOU CONSIDER STUDYING AT OTEN-DE IN THE FUTURE?
91% of respondents answered yes (n=727, m=38)

ANY FURTHER COMMENTS YOU WOULD LIKE TO MAKE
This was by far the most popular open question drawing 453 responses.

- 42% of respondents expressed the desire to enrol again in 2000 and continue their course:
  > I am not dropping out of the course, I still have time to complete it and I will be continuing in the New Year. I really enjoy it.
  >
  > Am re-enrolling now that commitments (family and work) have eased. I am still doing it.
- 13% of respondents indicated that they would like to continue studying at a later date:
  > Great course, would like to consider doing it in the future.
  >
  > When my life settles down again I might try the course again as it seemed really good.
- 13% of respondents made positive statements /remarks about their study experience with OTEN-DE:
  > I was very happy with the whole structure of the course and felt the support was there if needed, it was just a lack of time on my part.
  >
  > I found the material comprehensive and easy to follow. The staff that I spoke to were also helpful and friendly.
- 10% of respondents stated they would not be finishing the course with OTEN-DE, some of these students were transferring to face-to-face TAFE courses, some were simply changing to a different course:
  > I think I will enrol in a part-time course at TAFE next year to complete this course.
  >
  > The teachers were excellent. I just found the course too hard, plus having a new baby. Hope to do another course next year.
- 4% of respondents commented negatively about their experience with OTEN-DE:
  > I was told this course was for those who had never used a computer before. This course is not designed for such a person ... I believe I was misled by your pamphlet.
- The remaining 18% of comments were mainly about why the student didn't finish the course.

DISCUSSION

The results of the survey indicate that at OTEN-DE, non-completion of course/modules is strongly associated with the 'external' factors of family/personal and job related reasons (56% of respondents cited family/personal reasons, and 45% job related reasons). These are considered to be outside the immediate control of the institution. It is interesting to compare these findings with a similar study by Brown (1996) into the role of internal and external factors in the discontinuation of off-campus students at Deakin University. The study found that factors 'internal' to the university were cited as major reasons for discontinuance - insufficient support from tutors and difficulties contacting tutors (67%). Brown also found that even for those students who discontinued primarily for family and/or employment reasons, the problems with tutor interactions remained important factors. This was not found to be the case in the OTEN-DE study, external reasons for non-completion (family and/or employment reasons) were not strongly associated with internal (problems with teachers, course content) reasons.

The tension, which sometimes exists in defining a successful outcome for both the student and the institution, is evident in the responses to the question about reasons for non-completion relating to job. 20% of written responses to this question were examples of Couts' (1994) 'personally positive reasons' why students do not complete - i.e. job promotion, change of job requiring a change of course. The institution is left with an uncompleted module, but the student has achieved the outcome they required.

This is also the case with another external factor which 19% of respondents cited as a reason for non-completion - the change from OTEN-DE to another study option. Failure to complete a course at a particular institution need not mean failure to gain a qualification elsewhere. 10% of respondents stated they were changing from OTEN-DE to a face-to-face TAFE college. This is not necessarily something that OTEN-DE can do anything about - there are a number of students who do discover that distance study is not for them. In fact, the survey showed that there were 20% of respondents who cited studying by distance mode as a reason for non-completion. Half of those respondents also stated that they changed to another study option. Of the other 80% respondents who did not find studying by distance a reason for non-completion, 70% stated categorically that distance study suited their lifestyle.

25% of respondents cited reasons related to confidence and motivation and this was the third highest response rate for non-completion of the eight factors. On the face of it, one might expect this factor to be external to an institution, however, OTEN-DE has started implementing strategies aimed at enhancing and facilitating positive interaction between students and teachers.

In the written responses to the question relating to confidence and motivation, and also the question relating to whether OTEN-DE could or should have done something which would have assisted completion, students invariably asked for more structure in their course e.g. written deadlines for assignments, phone reminders, work timetables etc. This highlights the paradox of flexible delivery, which is, that while some students are drawn to this mode of delivery, they may not have the skills to successfully handle it. However, OTEN-DE certainly provides a supportive framework of skills and student support for those who require it, and will investigate further augmenting this area.

The survey also found that the number of students citing problems with course content/materials, teachers and/or assignments and course delivery as reasons relating to non-completion, were relatively low compared to the other external factors. The highest response rate for non-completion was 19% for reasons related to course content and/or materials. All three questions had over 80% of respondents stating that this was not the reason for non-completion. The reason for this could also be that many students just did not get far enough into their studies to make any judgments in this area. Nevertheless, OTEN-DE's future strategies to reduce student non-completion rates will be well informed by this research.

The finding from the survey concerning the information relating to students' experience studying with OTEN-DE was very positive. 91% of respondents stated that they would consider studying at OTEN-DE in the future and the written responses to the last open question on any other comments you would like to make, 42% of students stated they were intending to re-enrol and finish their course in 2000 - hence the title of this paper - 'I am still studying, I just have not finished', a comment from one of the students which seemed to capture the optimism which was evident in the responses to this question.

The next phase of the research project will be to undertake further analysis of the sample, particularly the profile of the students who did not respond to the survey. Further research will be

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carried out on the 1999 sample of non-completing students to find out how many students did in fact re-enrol and complete their course/modules.

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Lifelong learning in the new millennium — a shared responsibility approach

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INTRODUCTION

An adult educator must have a professional commitment to best practice and any best practice approach must include an obligation to provide students with flexible alternatives that meet the demands of not only their learning needs but also their personal lifestyles and workplace commitments. This must be supported by a personal commitment to lifelong learning and the value of workplace and life experience.

Any adult educator that embraces these concepts will recognise that non-classroom teaching methods offer them the opportunity to guide students through a positive experience of independent learning with an emphasis on action learning, self-directed learning and reflection on action. Personal experience has been that it is a shared expedition of professional learning, personal development and joy.

Smith and Spurling in *Individual Lifelong Learning Accounts: Towards a Learning Revolution*, argue that the existing fragmented, provider-led arrangements for education and training must be replaced by a responsive, learner-led system; and that a culture of lifelong learning must be developed throughout the population. Policies to achieve change of this magnitude will need to be thoroughly designed, have the range to support learning throughout the lifespan, and the reach to cover the whole of society. This view places the onus on learning communities, academic institutions and educators to create innovative, learning opportunities that address the needs of all. This must be achieved while grappling with the impacts of changing social relations in the economic, political, social, cultural and environmental areas of the world.

This perspective lays the foundations for the approach I chose to complete the spiralling series of research, projects and practice implementations that are the basis of this paper.

RESEARCH APPROACH

The approach to this project has been very much one of grounded, action research. This accounts for the spiralling emergence of several projects and the fact that the research and its outcomes are evolutionary and never-ending. It also accounts for the involvement of all the stakeholders, particularly the students, at all stages. The focus was on their interests, concerns and issues and how they could be met within the managerial requirements of the Canberra Institute of Technology and the National Training Agenda. The experience has been an interesting and fruitful learning process of being conveyed on an evolving and revolving 'merry-go-round' of research.

'Grounded Theory does not represent a change in philosophy and scientific thought' [Glaser, 1998, p.44]. 'It requires some theoretical and social sensitivity, and the ability to maintain analytic distance, while at the same time drawing upon theoretical knowledge and astute powers of assimilation of data which allow concepts to emerge, that patterns of data indicate' [Glaser, 1992, p.12].

Dr Rosalie Holian cites Pam Swepson's paper, where she advocates that '...Action research in your own organisation can offer opportunities for exploring links between theory and practice, enhance identification of options, assist decision making and engage organisational members in on-going reflection and feedback as to how to better meet desired objectives'. Swepson used the action research process to '... undertake a fairly ambitious action research project...' in her own organisation. The project was aimed at addressing '...organisational issues and solving practical problems using action research techniques and approaches...'. Having '... incorporated these into [her] management style [she found that] this approach served [her] well ... using aspects of action research to address organisational re-structuring, a merger/take-over and downsizing in several different organisations.' [Holian, R.1999. online]

Since the Institute was undergoing similar changes, and there was a high degree of resistance, grounded action research was chosen to pursue change and understanding at the same time. The cyclic process that alternated between action and critical reflection, continuously refined methods, data and interpretation providing an emergent process. It was a participatory process so change was achieved more easily because those who were affected were involved in the change process. The process promoted the acceptance of change and addressed resistance issues in a positive way that recognised the needs of all involved. [Dick 1999 online]

BEGINNINGS

The first assessment project had its origins in the staff room of the Department of Community Development in 1996. The original project began with a search for a valid assessment process that would provide grading options; became a pilot program conducted in 1997 and has in turn extended through 1998/99 to become an integral part of the assessment processes and delivery structure of the Department. The research emerged as an expedition of discovery into, and the endorsement of, an effective alternative course delivery system that is learner centred.

The cultural shift

The cultural shift needed to embrace these concepts began for me at a workshop on Workbased Learning. I attended the workshop seeking insights into flexible assessment strategies and came away with a new paradigm for education. A paradigm that I envisaged could widen and deepen participation and achievement in learning. A strategy that I believed had the potential to initiate a process of empowerment through learning and to set in motion a process that is the basis of learning for personal development and social change.

When adapting to meet the future directions of any educational organisation, ... 'teachers and managers have to learn new skills, new rules and new techniques. Most important is for them to become advisers, rather than authorities or superiors who control.' [Burns 1995 p224]

Major role changes occur when moving from teacher-centred learning to the facilitation of self-directed learning. It was necessary to incorporate techniques that promoted learners' involvement in planning for, and thus accepting responsibility for, their own learning. This self-directed learning approach promoted a belief system that established learning as a normal part of workplace activities. This required the acknowledgment that valid learning does take place in the workplace, outside the realms of traditional academia.

The ensuing major cultural shift met a widespread range of challenges. It has been a 'cultural revolution' to turn a vision of innovative, flexible, approaches to assessment and education delivery into reality. Radical changes in attitudes towards traditional teaching and assessment strategies were necessary to construct a culture of flexibility that could move towards creating a lifelong independent learning approach. The scale of the task was huge. Initially the need for such a major cultural shift had to be spelled out, argued and taken on board by all the stakeholders.

This revolutionary change in attitudes and approaches signalled the shift towards greater involvement of students in their own learning. The confines of students' own resources and the level of commitment they are prepared to invest in their own learning limit this. I contend that best practice embraces these principles. Teacher and student have a shared responsibility in the education processes.

SOME CONCEPTS

Online delivery

Warner, Christie and Choy (1998) state, '... that to assume that good flexible delivery must include a reliance on technology ... is a misrepresentation and a misperception'. Another major criticism of online delivery is that it creates a gap between the 'haves and have nots' of learners. A survey of 87 students in semester two, 1999 showed that 72% of our students have limited or no access to computers and the internet and consequently have poorly developed skills in using the technology needed to be successful online. A similar survey of the community sector's non-government organisations showed that 56% of organisations do not have access to the internet and 60% of staff has limited access to computers. This promotes an access and equity problem. Even when students are given the choice of learning online their lifestyle and workplace constraints make this mode of study unavailable to them. On-campus access to technology is limited and requires learners to be on-campus to access it. This does nothing to alleviate the need to work, the need to meet family commitments or any of the various other reasons that people express the need to study off-campus. Technology is not the panacea of flexible delivery. It is a component of flexible delivery.

Flexible delivery

Flexible delivery is about offering alternatives that meet the varied needs of learners. It is about providing the supports, strategies and resources that independent learners need to be successful. Flexible Delivery has created a major shift in how educators and students think about teaching and learning. By allowing students to learn in locations that are more convenient and often at more convenient times, a flexible approach to education opens educational opportunity to previously un-reached populations. It also enables more people to extend the period of their education from a limited number of years to a lifelong learning process. In addition, it changes power and authority relationships between teachers and learners, often encouraging more equal and open communication than occurs in conventional educational settings. It promotes a shared responsibility within the learning process. However, students need to know that their teacher is accessible and willing to be involved in the learning process. Success depends on the development of a learning community that interacts. A person's desire to participate in an educational program often is the result of a changing personal, social, or vocational situation. Consequently, programs must be designed to satisfy the interests of participants. In the Department of Community Development, this individual orientation has resulted in the creation of a continually changing, dynamic delivery program, able to respond to the varied needs of society.

THE SPIRAL OF PROJECTS

Graded assessment project

The project team aimed to find a quality framework for flexible assessment. The flexible assessment strategy developed involved a CIT-based traditional classroom delivery mode incorporating managed work-based projects. It is an enhancement of the traditional on-campus delivery with a field placement component. These reality-based projects involve the student developing a concept proposal based on their own research and then negotiating with an agency to form a working partnership. The teachers provide guidance and support for this process and assist in the clarification of project goals and planning.

A combined internal/external assessment panel for graded competency based assessment is used. This involves assessing, complex integrated tasks that include researching, designing, planning, developing, implementing and evaluating a community-based project. The establishment of additional criteria assesses differing levels of excellence. The non-graded are skills based criteria - graded criteria are based on the practical application of underpinning knowledge and other subjective areas

Evaluation

Evaluation of this delivery and assessment strategy involved interviews and feedback from agencies and field supervisors. Interviews were conducted on video, at the end of the panel presentations and during supervision sessions. Students were interviewed by their field supervisors, by the coordinator of the project and by other members of staff. The information gathered was then collated to establish an overview of opinions from the learners. This evaluation process helped us to develop an understanding of the learners' perspective. We felt this was important, as the focus to date had been on the merits of different forms of assessment. The feedback from learners and industry supervisors raised issues around the need for further support services and resources for Guided Independent Learning in the workplace. Reflection and action on the issues raised brought positive and sequential outcomes that provided impetus and focus for the future.

A large proportion of the students are working adults who attend some classes or workshops and are finding Guided Independent Learning a more satisfying and manageable way of learning.

Richard Felnagle, Mesa Community College, Maricopa states that research in that institution has shown that '... students should be offered meaningful choices [and] should be able to customise their work to their particular needs and wants'. (1997,p5)

Broadening the concept

The concept was broadened to allow students to conduct relevant research in the module of that title for a semester before starting their project. This was implemented when past students indicated that the research stage of their projects had taken longer than anticipated.

The Department provides resources to facilitate the completion of relevant research that identifies the need for their proposed community based project. The project is chosen by the student and there is immense flexibility in the way the project is completed. Consistency is maintained through the assessment criteria. This allows the teacher to avoid the use of rigid formulas with no opportunity for student input. The students take control of their own learning and make relevant choices regarding the research needs, methodology and methods to meet the desired outcomes of their project. The learning is made more relevant to their current or anticipated workplace and they have the opportunity to develop and grow within a framework of their own interests and satisfaction.

New role for the teacher

The ongoing reflection on the processes and outcomes indicated a change in the role of the teacher. It became apparent that when we allowed the student to take control of their own learning it was important for the teacher to monitor and guide the processes. The teacher becomes the motivator, the 'bridge-builder' to promote transition to independent learning, the information provider and research leader. It is important that teachers provide the stimulus and facilitate interaction between groups, and between students and industry. This process moves the learners towards becoming independent to the point where the teacher role becomes a diminishing one of support and encouragement. The learner moves towards accepting a greater responsibility for their own development and learning, progressively becoming a self-sufficient, self-managing, integrated, effective worker in the field.

Online support classroom

As support was identified as a high priority by students and industry supervisors, and since we had an existing online classroom within the Institute, all teachers in the department were given training in using this resource. It was not meant to deliver online programs but provides an important support resource for students. Some students had access to the Internet at home others used the campus library. Library staff members were provided with accessing processes for this resource and they assisted students throughout the year. The online support included class announcements, discussion groups and provided underpinning theoretical knowledge resources and references. An online chat was conducted once a week for those that could access the internet at that time. All of these resources were accessed continually and proved important supports for most students. Others who did not have access were not overly concerned and many indicated that they did not want to use them as they felt they would be confused by the technology.

Print-based study guides

The fact that some students did not have access to technology led us to consider that some learners may be disadvantaged by not having access to the online classroom. Consequently, another spiral began and print-based learning guides were developed for all modules. These learning guides are also used in the classroom to provide consistency across the course. This new development provided the impetus for further fleximode opportunities within the study programs we deliver. Studying off-campus was now a real option for learners who were in the workforce. Students now had a choice of on-campus and off-campus study, they could choose a mixture of both, workshops were developed to deliver underpinning knowledge and theoretical concepts, the workplace could be used for the practical application of concepts learned. This flexibility in study modes allowed us to develop partnerships with industry for the workplace delivery of some programs.

A meeting place

Another question to ponder. Since it was apparent that some learners did not have access to a computer or the skills to use one, were they being disadvantaged when it came to compiling and presenting their final report? All learners want to give the best presentation they can before the panel and they should be supported to do so, they should not be placed at a disadvantage. They would have access to administrative support in most workplaces and working teams would have a wide range of skills to utilise.

It was from this aspect that we requested from the faculty a space for learners and learner groups to meet. We then provided a computer in that space. The space was located in close proximity to the teaching staff and the coordinator of the workbased learning projects. The coordinator and the teachers provided support in learning skills such as desktop publishing, binding, compiling and collating information, research report writing and various other computing and presentation skills. This space proved so popular that students now have to book time in advance. The location of the space fostered the feeling that teachers were accessible and willing to be involved in the learning process.

Staff training

The department organised training for staff in the facilitation of the Online Classroom, Teachers of course have to take the opportunity to develop these best practice skills. However, it should be noted that teachers who did not avail themselves of these opportunities, were not committed to the changing focus of education within the department, have left to work in more traditional areas of the adult education system.

There have been many discussions and debates along the way that have brought new insights and ideas into the procession of questions that are part of the spiral of this research. As a result, the department now has a vital, working and integrated team that is focused on quality of learning within a learner-centred model of education delivery. We have a high spirited, innovative team that is ready to meet the challenge of future questions that arise from evaluating outcomes.

Fleximode delivery options

Over a period of two years, the Department has implemented a range of delivery strategies including CIT-based delivery incorporating managed work-based projects; a combination of on-campus and workplace delivery; workplace delivery in partnership with the employer; workplace delivery in partnership with the employee and print-based external studies. All are now an integral part of the education delivery process and are used to provide students with choices to study flexibly.

A new structure in fleximode delivery

Evaluation of the outcomes showed that some students who chose to study in fleximode were not succeeding. They were using the study mode as a means of not attending classes and/or did not have the motivation, support and skills to be successful in this study mode.

To counteract these negative outcomes we have now introduced a structure where students are required to complete an application to study by fleximode. The application form addresses their awareness, accessibility and experience in the field. Completion of this stage requires them to then complete a self-assessment quiz that highlights their understanding of the expectations, their supports, their motivation and their skills for successful study off-campus. This is followed by an interview with the coordinator of fleximode study where possible negatives, strengths and weaknesses are discussed so that students make an informed decision about taking on this demanding type of study.

Web page

Our new web site allows students to arrange their own email address to encourage and support communication. We have incorporated a Student Support Sub-Site that incorporates a chat line and a threaded discussion. This site is accessible by all students but is pass-worded for the use of our students and our Department only. The web master uploads overheads, lecture notes, assessment details and any other resources used in the classroom or workshops as provided by teachers.

Some teachers have allocated chat times for the modules they are teaching. The chat is semi-structured to maintain focus but loose enough to allow some innovative and exploratory discussion. Students are again encouraged to participate in the discussion and chat lines. They are also encouraged to start their own discussion groups on course related topics. Topics must be relevant to the course, educational issues or needs, or social and political issues affecting the community.

Conclusion

Many hours, many late nights and lost weekends have been devoted to this project. The spiral keeps growing and the department keeps expanding, students are a continual source of inspiration and as a teacher, my strength and awareness keeps deepening.

Learners come into our courses looking for support and guidance to achieve. When we meet that challenge and take on a shared responsibility then those learners can be successful as Guided Independent Learners and leave as self-directed learners. Accepting a shared role in the learning processes demonstrates an ongoing commitment to the learning and growth of your students and to your own professional development as an adult educator.

Any approach to the development of lifelong learning as an element of social capital should be in laying the foundation for a fundamental change in attitude towards social pedagogy.

The focus needs to be on generating an interest in lifelong learning, which should increase the demand for learning opportunities. This demand should be especially fostered among those that are traditionally marginalised within or excluded from the traditional learning environment. This can be done by the implementation of strategies that will alter this group's aspirations and desires for social capital and engage them in learning in a variety of modes.

A revolution in attitudes is needed to make the shift towards a new millennium that promotes a sharing of responsibility for lifelong learning. An approach that allows individuals to have more control over the development of their own learning.

The range of issues and strategies that have been experienced in implementing a flexible approach to Guided Independent Learning has been the beginning of a move towards a sharing of responsibility in the development of learning partnerships between student and teacher. These strategies have allowed learners the opportunity to increasingly accept more responsibility. These initiatives allow learners to invest more of themselves in their own learning thus enhancing the desired sense of shared responsibility.

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Learning from history: towards a new deal for TAFE

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INTRODUCTION

The AEU is engaged in a three phase research project on the funding and structures of TAFE. The first phase of the research involved documentation and analysis of the history of TAFE funding and structures since Kangan. The second part sought to develop an overview and analysis of current policy directions for vocational education and training within the context of that history. The third phase, which is to begin in 2000, will document and analyse the funding structures of individual TAFE systems within the states and territories.

The current paper focuses on the second phase of the project, the analysis of current policy directions and the impact on TAFE and on TAFE stakeholders. There are however a couple of brief points that should be made about the history of TAFE funding because they are particularly relevant to coming to grips with current trends.

Firstly, while Commonwealth recurrent funding has substantially increased since it began in 1974, and is now over 30% of government funding for vocational education and training, the states and territories continue to provide the bulk of recurrent funding. The funding policies of both levels of government have a significant impact on TAFE systems.

The contributions of each level of government have fluctuated over time. During the early 1980s, for example, state outlays began to plateau while in the late 1980s the Commonwealth contribution declined, ironically just at the time that the Commonwealth began to strengthen its role in shaping the national directions for technical and further education (Kronemann 1999).

The early 1990s saw a significant expansion of the Commonwealth recurrent funding effort while there was an actual fall in the overall funding provided by the states and territories. With the signing of the 1998 revised ANTA Agreement, the interaction of Commonwealth and state/territory funding policies has become a significant pressure on TAFE systems.

Secondly, TAFE funding structures from Kangan on generally recognised the complex educational, social and economic roles of a vocational education and training system. This was particularly evident in the 1986 funding review, which argued the need for a holistic approach to meet broader educational and social objectives and, with great prescience, argued against fee-for-service arrangements for general programs and that an emphasis '...on 'consumer sovereignty' would distort educational processes away from conferring broad-based adaptive skills towards the job-specific end of the scale' (CTEC 1986, 121).

The TAFE system has largely continued to provide the broad range of courses and services needed by students, by industry and the wider community. There is growing evidence, however, that much of this success is despite, rather than because of, the current national structures and policies. The 1998 House of Representatives Standing Committee report found, for example, that while 'TAFE institutes have a clear sense of their role and mission, Governments at both Commonwealth and State/Territory levels have not clearly articulated their vision for and expectations of TAFE' (HRSCEET 1998, 6). There is growing evidence of a divide between education communities and national/government policy makers and there are growing concerns about quality, sustainability, social justice goals and the possibility, as Anderson (1995) has argued, of a two-tier system being created.

The pressures on TAFE have now led three states to freeze current levels of user choice and to undertake reviews of key aspects of current policies and directions. It is becoming increasingly evident that current funding structures have placed serious constraints on the capacity of TAFE institutes to meet business and community needs and in some cases, to remain viable at all. With the current ANTA Agreement up for renegotiation this year, it is vital that the need for a new deal for TAFE is strongly articulated.

GROWTH THROUGH EFFICIENCIES

In 1998, despite some initial skirmishing between the Commonwealth and state/territory governments, a new ANTA Agreement was put in place. The Commonwealth agreed to maintain funding levels in return for the states/territories achieving such efficiencies. Under the concept of 'growth through efficiency', TAFE has effectively been required to fund new enrolments from within existing resource levels.

This has been a central element in the resource pressures felt increasingly by TAFE institutes and systems around the country. It must be said that the Commonwealth position came after a reduction in Commonwealth base funding in the 1996-97 and 1997-98 budgets. Funding for 1996, for example, was reduced on previous projections by some $84 million, with cuts in grants to the states and to ANTA operations. A further 'benchmarking efficiency' cut was made in the following year (Kronemann 1999).

The NSW Department of Education has calculated that the loss of cumulative growth funding over the three years of the current agreement is around $138 million, without taking into account other Commonwealth policies such as decreasing capital grants, the impact of the Youth Allowance and cuts to labour market programs (NSW DET 1999).

The states and territories have undertaken a range of strategies in relation to achieving growth and/or efficiency, including increased use of competitive tendering, increased fully on-the-job training for New Apprentices, increased focus on RPL, negotiated productivity improvements and development of flexible and on-line approaches to training deliver. Efficiency/productivity dividends required by state/territory governments are seen either as a limiting factor on the capacity to achieve further efficiencies or as an efficiency strategy in themselves, used for example to purchase additional places through competitive tender. Structural reforms are virtually perpetual.

Outcomes for 1999 are expected to provide total growth over the two years from 1997 of about 11 million valid Annual Hours Curriculum (AHC), or approximately 70,000 additional student places. Most of the growth is forecast to have occurred in 1998, with growth in 1999 estimated at the equivalent of about 9300 student places (ANTA 1998).

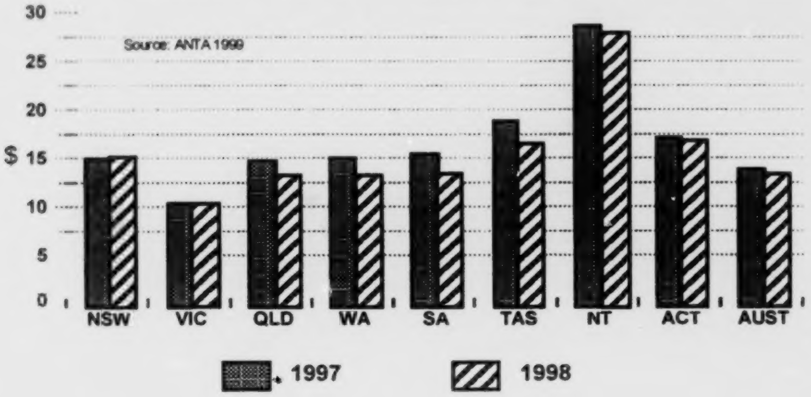
Collectively the states and territories are also expected to yield an efficiency improvement of about 3.6% over that period (ANTA 1998). Between 1996 and 1997, average unit costs decreased in real terms from $11.80 to $11.40 per adjusted AHC (ANTA 1998b).Victoria, seen as the benchmark because it has the lowest unit costs of any system, spent $8.90 per adjusted AHC. This is lower in real terms than Burke's analysis of estimated average TAFE costs per student contact hour in 1991, which in 1997 prices would be about $9.48. (NBEET 1992)

The introduction of accrual accounting has inflated subsequent figures by an average of 20.8%, making direct comparisons with previous years impossible.

From 1997 to 1998, the average Australian cost per AHC declined from $13.86 to $13.38 in 1998 prices. This is a fall of 3.5% in real terms. Government recurrent expenditure increased by about 3% and the final adjusted curriculum hours increased by 7% (ANTA 1999).

ANTA (1999) noted that the Commonwealth Grants Commission assessments of the cost disabilities which apply in various systems are not applied to these unit costs, which has a significant impact on any serious comparisons between systems. NSW also indicated that much of the increase reported in that state was due to the timing of the accounts.

Unit costs — states/territories in 1998 prices (accrual)

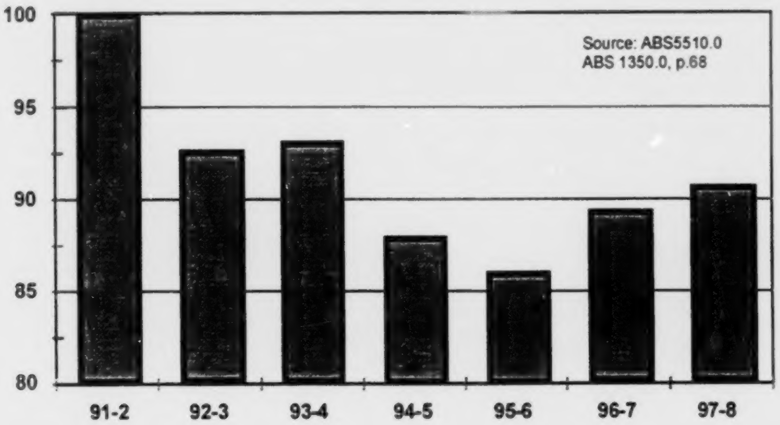


STATE AND TERRITORY CUTS

The impact of the growth through efficiency framework is complicated by the declining contribution from the states and territories overall.

When calculated as an index in which 1991-92 is the base (= 100), the contribution of the states and territories can be seen to have fluctuated in the 1990s, but at levels considerably below their contribution in the 91-2 base year. In 1995-96, the states and territories were, overall, contributing 85.7% in real terms of the funding they allocated in 1991-92, and in 1997-98, they were contributing 90.3% of the funding provided in 1991-91. (ABS 5510.0)

Real change in VET expenditure by the states and territories (1991–92 = 100)



While the extent of the withdrawal of state/territory funding has varied from system to system, from a national perspective the picture provided by the ABS data has been fairly stark.

NCVER financial data indicates that the small growth in funding from the states and territories in 1998 was countered by the fall in Commonwealth funds and the overall allocation of government funds actually fell by $17.5m in 1998 in money terms. Within that picture, the funding allocated to non-TAFE providers has grown substantially. When this is taken into account, the government allocation to TAFE actually fell by $84.9m in 1998 (NCVER 1999).

The NCVER data also allows an estimate to be made of the state and territory contribution per Annual Hour Curriculum. In 1998, this unit cost varied from $14.80 in the Northern Territory to $5.11 in Victoria, with an Australian average of $7. Australia wide, the contribution of the states and territories per AHC fell by 2% in real terms in 1998 (Kronemann 1999)

There were of course other resource pressures on TAFE funding. In the year to 1998, revenue coming from fee for service, student fees and charges and ancillary trading and other activities also fell, with the total decline in VET revenue being $61 million, or 2.9% in real terms (NCVER 1999). Some systems, such as NSW, have had further budget cuts announced in 1999 which would exacerbate these trends. Others, such as Queensland and Victoria, have seen incoming Labor Governments provide some funding relief to TAFE institutes.

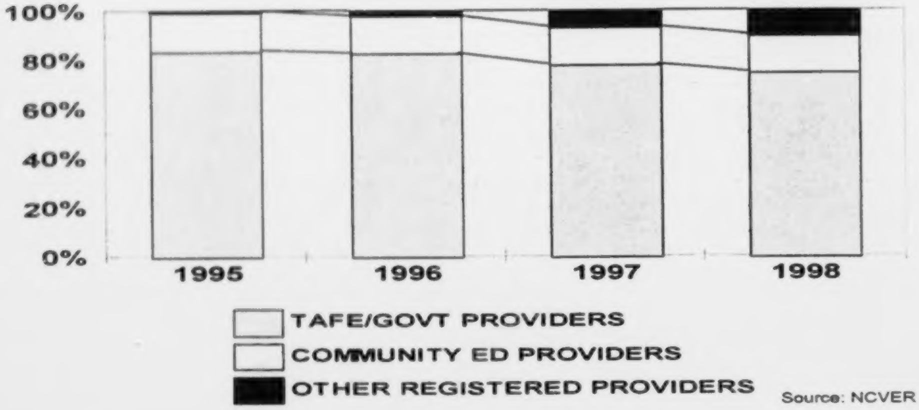
COMPETITIVE TENDERING

The other major pressure on TAFE resources has been the significant growth in competition and contestable funding. While in 1995 $21 million was committed to the training market, in 1999, the total level of contestable funding is expected to have increased to $402 million (ANTA 1998, 1995).

In effect, resources are being redirected from TAFE to private providers. In 1995, the total funding for non-TAFE providers was $58.6 million, and by 1998 it had increased to $243.1 million, or 6.1% of government funding (NCVER 1999, 1996).

By 1998, private providers enrolled 150,800 clients, or 9.8% of total clients. The proportion of clients enrolled in TAFE or other government providers fell from 82.9% to 75% between 1996 and 1998. (NCVER 1999,1998).

VOCATIONAL EDUCATION CLIENTS BY PROVIDER, 1995-1998 (per cent)



Source: NCVER

The impact of this redirection of funds to private providers must be understood within the context of the other resource pressures on TAFE institutes. In Queensland, for example, more than $60 million was transferred from base funding of TAFE institutes under user choice, and institutes actually lost $15 million. They lost $34m through competitive funding. The institutes claimed that tendering cost them each $100,000 - $200,000 (Bannikoff 1998).

The decision by the previous Queensland Government to allow existing workers to enter traineeships led to a fall in industry funded training in institutes of about $9.1m in the year to 1997-98, and exacerbated the financial problems. In 1997-98, revenues from commercial operations were $20m less than originally planned (Bannikoff 1998).

As has been the case elsewhere, the loss of funds as a consequence of competitive tendering was also accompanied by savings and efficiency dividend requirements from both Commonwealth and State Government levels, estimated to total about $15m per year. Support for product development was abolished. Taken together, in the two years to June 1998 the combination of new administrative procedures, budget cuts and efficiency savings affected 47% of Queensland institute budgets (Bannikoff 1998).

The result was a cut in public funding for TAFE institutes, a decline in industry funded training, increased administration costs and a decline in the quality of programs offered in Institutes. Left unchanged, Queensland institutes would have faced an annual operating loss by the year 2000 of between $44.6m and $84.6m (Bannikoff 1998).

The new Victorian Government has identified similar concerns about the funding pressures on TAFE institutes and the impact of user choice, with a number of institutes having faced unsustainable resource constraints in the context of general trends and a purchasing model which did not address differential resource needs. Victoria too has frozen contestable funding for 12 months and increased funding for TAFE institutes overall with additional resources going to beleaguered regional institutes. Tasmania has also frozen contestable funding levels and recently released a report by Schofield identifying concerns with current traineeship outcomes.

RESOURCE IMPACTS

The current round of reviews has identified key concerns about quality in relation to traineeships, with the Queensland report finding inter alia that 19% of trainees received no training (Schofield 1999). More generally, of the more than 200 TAFE responses to the 1999 ACTU Working Time and Job Security Survey, 89% agreed with the statement that 'I don't feel I can provide the right level of service or quality because there is too much work to be done' (Gale 1999).

Damon Anderson has identified concerns about the fall in the proportion of total expenditure allocated to student services, in a context where a growing proportion of students are disadvantaged and more money is being transferred to private providers who offer relatively little support. He has argued that over one third of the people who dropped out of education courses in the last five years did so for reasons that could potentially have been addressed through student services (Anderson 1999).

NCVER (1999) data makes clear that in the year to 1998, funding for student services across the country fell by $36.2 million, or 22%. On average, only 41c of the $13.38 spent per AHC in 1998 was allocated to student services (Kronemann 1999). This has serious implications for the capacity of TAFE institutes to meet the educational needs of their communities. The reality is, of course, that the biggest group of clients in TAFE are individual students, who come with a wide range of aspirations and objectives. TAFE students are more likely to belong to a greater number of targeted equity groups than those who study with other providers (Golding and Volkoff 1999).

The resource pressures have also seen employee costs fall as a proportion of total costs, from 68.7% of expenditure in 1993 to 61.6% in 1998 (NCVER 1999). This is despite the continued growth in enrolments and AHC taught within institutes. There has been a growth across Australia in the proportion of contract and casual/sessional staff. In 1995, 58% of teaching hours were provided by full time staff and 42% by part time staff (Mather in ANTA 1997). The growth in precarious employment impacts on staff but also on their capacity to provide quality education to students. It is also linked to reduced access to professional development, particularly for the casual teachers themselves. Victorian data shows that they were 20% of staff and received 3% of the staff development expenditure (STVB 1997).

There are gender implications of the shift in employment mode. Data from Victoria, for example, indicates that more females than males have been employed in recent years. Because of the shift to contract and casual employment, women are more likely to be employed in those modes (Kronemann 1999).

There has also been a massive increase in teacher workload. Victorian data shows that between 1993 and 1997, the average student contact hours per EFT teacher increased by 14.8% (Kronemann 1999). In their responses to the ACTU survey, 32% of TAFE workers indicated that they were working at least 45 hours per week, 48% of full time workers said that the hours per week they usually work has increased and 74% that the pace of their work has increased (Gale 1999). In total 72% of the TAFE respondents indicated that they have considered resigning due to workload pressures, a situation even more alarming in the face of the emerging teacher shortage across all education sectors.

TOWARDS A NEW DEAL FOR TAFE

Despite the efforts of TAFE institutes to continue to meet the needs of their local communities within state and national frameworks, there is growing evidence of a crisis emerging in our national vocational education and training system. The interactions of the structured marketisation of VET with the additional funding pressures imposed by, at least in recent years, both Commonwealth and state and territory governments, are the central key to this situation, although not the only factors which need review and redress.

If TAFE is to meet the educational, vocational and social aspirations of Australians in the 21st century, then the current structures must be reviewed.

The structures and resourcing of the vocational education system must be based on the recognition that TAFE is a vital public asset which underpins the whole vocational education and training system and plays complex and multi-faceted roles in the development of Australia's educational and skills base, in the achievement of broader government objectives and in the social, economic and educational development of community and national life.

National policy frameworks and directions must be centred on quality and effectiveness as the most critical elements of a national system. This includes the need for a representative national body to define the standards and qualifications required of teachers and trainers in vocational education and training. It includes the need to strengthen quality and assurance compliance audit mechanisms and to develop more specific criteria within the Australian Recognition Framework relating for example to the availability of student services and facilities and to what constitutes appropriately qualified staff. And it includes the need to collate national data on staffing within VET, to form the basis for a review of the impact on teaching and learning conditions with a view to developing guidelines on staffing structures which enhance quality, effectiveness and fairness for workers and students.

In addition, new representative consultative and advisory bodies should be established at system and national levels to allow for the participation and representation of all stakeholders in the shaping of TAFE directions, including relevant education unions, students, the union movement, industry, community groups and state training authorities and governments.

Most critically, the current resource pressures must be addressed. Growth through efficiency policies must be abandoned. Competitive funding and marketisation must be restricted to clearly defined and specific programs which do not undermine the capacity of TAFE institutes to deliver their complex and multi-faceted roles.

The current funding levels, allocation methods and financial situation of TAFE institutes should be reviewed as a matter of urgency in every state and territory as has occurred in Queensland. Such a review should give particular focus to the funding needs of regional institutes. The outcomes of such reviews should be aggregated nationally and form the basis of a national review of policy directions, including the appropriate level of contribution from states/territories.

In addition, the impact of funding models, user choice and contestable funding on the quality of programs, general and specific services and on student and community access should be reviewed at system and national levels, as has occurred in relationship to apprenticeships and traineeships in Queensland, Tasmania and currently in Victoria. In broad terms, subject to the detailed outcomes of those reviews, a framework for a new funding structure can be proposed.

Base funding for TAFE must be increased to address the transfer of institute funding to private providers, to redress the reductions in overall state and territory contributions since 1991-92, and to ensure viable allocations per Annual Hour Curriculum. This would ensure stability of profile funding and enhance TAFE's capacity to meet complex community needs, to reduce current fees and charges to students and to withdraw from the trend to a casualised teaching force.

Commonwealth funding for growth must be reinstated to meet current levels of unmet demand and to enable all young people to access at least one year of post-compulsory education.

The Commonwealth should contribute additional funds on a dollar for dollar basis to the states and territories to assist TAFE institutes enrolling a disproportionately large number of disadvantaged students, as per the 1998 House of Representatives' Standing Committee recommendation.

A Quality Improvement Fund should be jointly funded by the Commonwealth and States and Territories, additional to Profile funding to provide for quality improvement strategies, including staff development, product/curriculum development, quality innovation projects, planning and consultation with local communities and stakeholders and increased cooperation between TAFE and schools in the delivery of VET.

The Commonwealth and states and territories should jointly establish an Education Equity Program which would ensure that services, programs and support structures meet the needs of disadvantaged students and local communities. Such a program should be linked to a Disadvantaged Regional Areas Program which would provide resources for a whole of government approach combining industry policy, labour market programs, job creation, job placement, education and training and community welfare support and services.

Within this framework, consideration should be given to the possible provision to TAFEs of the capacity to form group training companies or to provide employment services.

Without such changes, the role of TAFE as public provider and vital community asset will increasingly be undermined by the current directions. The current round of reviews and the outcomes to date identify some of the challenges and suggest that new perspectives are possible. The reality is, however, that stakeholders in TAFE need to articulate their needs and perspectives and ensure that they are heard, if new frameworks and new approaches to the national agenda and the future of vocational education and training are to develop.

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Admin Training Company's Best Practice Models

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ABSTRACT

The Admin Training Company (ATC) has been an active player in each phase of Australian vocational training during the 1990s. We are a not-for-profit research and publications company with a commitment to quality, structured workplace training and assessment. In 1993 we developed the first National Clerical-Administrative Competency Standards (Private Sector) while acting in an ITAB role for this workforce.

Subsequently, the Admin Training Company developed the Administration Training Package which was one of the first training packages to be endorsed and implemented in 1997. It supports a wide range of learning pathways, including workplace and school-based training, as well as other flexible combinations of on- and off-the-job training and assessment. Since its initial implementation in January 1998, the package has had wide industry application demonstrated by over 20,700 people undertaking Level 2, 3 and 4 New Apprenticeships (traineeships). (Admin Training Company, NTFC Submission, 1999: p 1)

A major focus for the organisation over the last five years has been implementing competency standards and training packages in workplaces in Australia. One of the tools for implementation has been high quality resources that support learning in the workplace. This paper discusses two case studies, which illustrate best practice. Through this process we have identified some of the challenges for the VET system.

INTRODUCTION

The Admin Training Company has therefore led the way for many of the changes in VET since 1993 and as a result we have gained a national reputation for our work in policy development and research. Our research and experience in the field reveal that the ability and willingness to embrace innovative flexible delivery depends upon the development of a training culture in the workplace. In particular, the role of supervisors and managers in facilitating a culture of open-learning is crucial to its success.

This message underpins many of the successful research projects that the ATC has been involved in. The two case studies presented in this paper involved customer service officers and team leaders at Level 4 and Level 5 and administration workers at Level 4.

This paper addresses the following topics:
- The changing nature of work-implications for VET policy and practice
- Flexible delivery approaches-evaluating outcomes and informing learning
- Successful models of delivery.

OBJECTIVE

The purpose of this research was:
- to investigate the effectiveness of training packages in the workplace
- to investigate the effectiveness of workplace learning
- to explore the impact of training packages on work practices
- to challenge providers and policy makers to increase support to workplace learning.

METHODOLOGY

This research activity was designed as a small-scale study of organisations that the Administration Training Package. The ATC investigated whether the Administration Training Package was flexible in meeting the needs of the organisations and learners, identified the types of resources required and issues encountered. A qualitative methodology was deemed to be appropriate.

The principal methods adopted were:

- facilitation of the training package in workplaces
- interviews with employers, supervisors and learners in two different service organisations.

Other methodology implemented in this research included:

- literature review of materials relating to workplace learning and Vocational Education and Training (VET)
- a case study approach into the research
- preparation of research paper.

VET IN THE WORKPLACE

Structured workplace learning is the preferred mode of training delivery for many young people in traineeships and their employers. Making the link between work and what is formally learnt is simplified by the common currency of national competency standards. The competency-based system also facilitates links between study, work and training pathways such as VET in Schools.

Increasingly, people prefer to be trained at work, to ensure that training is relevant to their work experiences as well as to further career opportunities. The Australian Industry Group's Training to Compete (1999) stated that one of industry's priorities was to improve the quality and relevance to industry of entry-level training. The other priority was the provision of support for higher level skills and knowledge to existing employees. In this regard, the Training Reform Agenda provides an opportunity for industry to recognise the skills of existing workers or other relevant experience without restriction to notional duration time allocated to training package qualifications. Recognition and assessment of skills can motivate people to continue learning when they realise that they have already achieved part of a qualification.

With changing work practices and demands for increased productivity, many organisations have welcomed training packages because of their flexibility to be customised to meet individual organisational needs. User Choice funding has challenged all training providers (private and public) to become competitive and innovative in developing workplace solutions and to support workplace training and assessment using flexible delivery options.

Such developments have resulted in registered training organisations being required to adapt quickly to the demand for changes in teaching and learning in the VET sector. The Admin Training Company has worked with the new challenges that training packages provide. We have assisted a number of organisations to implement training packages and have witnessed the benefits that have been derived.

HOW DO YOU KNOW IT IS QUALITY LEARNING?

Measuring quality learning is difficult. The challenges in the workplace are different to those identified in college-based learning and both are equally difficult to quantify. In general quality workplace learning must benefit the organisation, the learner and meet national standards. While training packages are the national benchmark for quality, registered training organisations must take steps to achieve all the above outcomes if quality workplace learning is to occur.

The measure used to ensure quality college-based learning is commonly linked to completion of national qualifications or other formally-recognised state or enterprise qualifications, retention rates, further study and employment. Although the average rate of non-completion of traineeships is approximately 50%, the percentage that complete a traineeship is generally much higher than in other professions. (Schofield, 1999: 13) The business services industry is particularly well suited to the workplace delivery mode as the workforce is multi-skilled, has high-levels of language, literacy and numeracy required for administrative roles, and there is a culture of training junior staff in the workplace. The success of workplace delivery in this area is reflected in the rates of traineeship completion which averaged 79% in the period from 1990 to 1998. (Schofield, 1999: 13.)

Furthermore, the apparent high rate of non-completion in some traineeships need not necessarily be seen as a negative outcome. It may well be that trainees are capitalising on their increased employability and are moving onto better jobs with better pay. As the Department of Employment Training and Youth Affairs (DETYA) report, Traineeship Non-completion speculates, "partial completion of a traineeship may nevertheless provide benefits for individuals and enterprises which offset the costs of non-completion. For example, the experience and skills gained from partial completion may provide individuals with a stepping stone to other employment." (DETYA, 1999: 10) It is also important to note that for the majority of trainees, this experience will be their first real work experience. The 50% rate of non-completion of traineeship closely mirrors the rate of separation from permanent jobs (DETYA, 1999: 10). People make inappropriate choices and the workplace setting clarifies that for them very quickly.

The two case studies presented in this paper and other ATC research into workplace learning and assessment has identified four essential requirements for achieving best practice in workplace learning (Admin Training Company, 1999). Firstly, in all cases the organisation must be committed and embrace a culture of open-learning. Secondly, one must seek to empower the individuals involved-an active self-directed learning approach is essential. Thirdly, the training provider acts as the facilitator-acting as coach, mentor, counsellor, final assessor and in some cases driving the whole process. Finally, it is the partnership between both the individual and the facilitator and a clear knowledge of the roles and responsibilities of each that ensure the success of the learning in the workplace and result in beneficial outcomes.

BEST PRACTICE SCENARIOS

Below are the two case studies presented by the ATC that highlight best practice in workplace learning.

Case study 1: The value of action-based learning

ATC in partnership with a registered training organisation (TAFE college) worked with a national government service organisation to implement changes in workplace practices for its team leaders and customer service officers. The organisation was seeking to promote its new image and motivate staff following a series of mergers and high level of change in the previous 12 months. The Certificate IV in Business (Administration) and the Diploma of Business (Administration) were delivered entirely in the workplace to implement a change in work practices. The registered training organisation's role was to coach, mentor and facilitate regular team meetings and to auspice the assessment process.

ATC worked with the organisation's team leaders and customer service officers to develop resources based on the Administration Competency Standards that assisted the organisation to focus on a holistic approach to skills development. The resources also ensured that the organisation's business objectives were addressed, for example, improved customer service delivery, leadership and communication skills across their urban and rural offices. Therefore, consideration to the demographic issues also had to be considered.

Management identified that action-based learning was the preferred mode of delivery for their workplace. Their choice was based on an evaluation of the success of previous training programs which demonstrated that when the passive learning style (of classroom delivery) was used, success was dependent upon the learner transferring their newly-learned principles or skills into the workplace. Unfortunately, this rarely occurred. This organisation chose the action-based learning style as they needed staff to transfer new knowledge and improved skills immediately into their current work practices.

The program empowered the participants to take on a self-directed approach for managing their learning. The action-based learning resources developed by ATC were a crucial success factor. The resources encouraged the development of skills that addressed the performance criteria of the competency standards. The materials included background information and case studies which enabled learners to develop underpinning knowledge (theory) and skills (practical), activities to encourage them to practice these skills and a revision activity that facilitated holistic assessment, demonstrating achievement of the competency. The program encouraged the learners to extend themselves by improving their performance as supervisors and customer service officers. The ongoing evidence gathering process, guided by the activities and revision activity were designed to ensure competence was demonstrated using relevant work-related tasks and issues.

A number of obstacles were encountered while trying to establish this program into the workplace-staff were required to undertake self-assessments that were verified by their supervisors or managers. Issues that arose included encouraging confidence in the participants' capacity to assess themselves and the need to build trust in each other to ensure that they were going to be treated fairly in the assessment process (without discrimination). These issues were explored with the assistance of the ATC and the registered training organisation, and solutions were found that included a sound knowledge of each party's roles and responsibilities. Another significant issue was the requirement by management to realise that it takes time to reap the benefits from the program which primarily required a full cultural change in attitude and performance by staff-management's ongoing support was maintained through regular progress reports and discussion of issues as they arose.

Case study 2: Self-directed learning changes work practices

The Office of Indigenous Employment coordinated a successful employment strategy for indigenous administration workers across a multi-campus university. This entry-level training program involved the delivery of the Level 2 and 3 Business Admin Traineeship using the ATC's Level 2/3 Business Admin Kit. A number of the participants indicated to the program coordinator employed by the university, that they would like the opportunity to continue learning to further their careers. She could see the benefits of extending the program to include competent administration workers employed in the department who lacked formal qualifications and were reluctant to 'go back to school'. The greatest advantage of work-based delivery is that it enables participants to gain qualifications in the workplace without attending a college. In this case, learning was done at their own pace in a real-not simulated-work environment and they didn't have to sit exams.

The challenge for the university was to implement a training program that catered for a variety of needs. Following the success of the level 2/3 program, the university discussed training options with ATC and it chose the Level 4 Certificate in Business Administration for its flexibility and the ATC's Level 4 Business Admin Kit because of its simple, easy-to-use format.

The Level 4 program was offered to a pilot group of eight participants who were required to attend a briefing session. The roles and responsibilities of all participants were clearly outlined from the beginning. They were informed about the need to take responsibility for their own learning and learnt how to use ATC resources to support their learning and how to collect their evidence.

The support of the program coordinator as facilitator, coach, trainer, and assessor was crucial to the success of the program. She felt it was important that the managers were committed to the program just as much as the participants, as they had to promote an environment conducive to learning. Her support was invaluable to individuals having difficulty in facilitating dedicated time-out for training sessions (four hours per week) and assisting participants to negotiate study leave away from their work desk with their supervisors. The environment created by the program coordinator encouraged them to set time aside to do their learning.

She also coordinated a structured learning program to address skill gaps, whereby the participants completed tasks in other departments. Group sessions were arranged to improve the participants' report writing skills required to achieve competency in many of the units at Level 4. Some required extra formal sessions; others assisted relevant personnel compile work-related reports to gain some experience.

Partnerships were established not only between the mentor and learners but amongst the learners themselves which contributed to the success of the program. As a result of the monthly meeting and buddy system, participants did not feel isolated during the learning program. This system provided a frame of reference for their learning and clear goals and direction. The participants discussed various topics and different ways of learning and gathering evidence. They sent e-mails to each other with helpful tips and suggestions. Training was fun!

During the program an unexpected outcome surprised the managers. Improved systems were being implemented that impacted upon the communication and efficiency of their workplace. The Level 4 learning program encouraged reflection and participants were instrumental in streamlining administrative processes. Tangible improvements such as more efficient filing systems, better internal and external communication flows and financial procedures were clearly evident.

To cap its success, the university launched an extended program for Level 4 and Level 5 that now includes 30 administration staff. Speaking at the launch, the Deputy Vice-Chancellor (academic and planning) said the take-up of the program among administrative staff is a "clear demonstration of how flexible, work-related courses enable life-long learning".

FINDINGS

Best practice in quality workplace learning is achieved when the learning benefits the organisation, learner and meets the national competency standards. It has been maintained that "there are many different accounts of what is encompassed by learning based in the workplace and there are also many different learning purposes" (Boud et al, 1999). The ATC's best practice models have identified the three most familiar purposes for workplace learning discussed by Boud et al. These are:

- Improving performance for the benefit of the organisation
  - > of self as worker of self as worker of self as worker of self as worker of self as worker of self as worker of self as worker
  - > of the team or work community
  - > of the enterprise.
- Improving learning for the benefit of the learner
  - > for self
  - > for one's personal growth and lifelong learning
- Improving learning as a social investment
  - > for citizenship (including the environment)
  - > for team or work community (including "learning organizations")
  - > for future enterprises ("creating the future")

While the purpose in each of the ATC model varies, the outcomes are similar. For example in the first case study, the main emphasis was to "improve performance for the benefit of the organization" and in the second case study the emphasis was to "improve learning for the benefit of the learner". However, the outcomes highlight that both these purposes are interlinked and benefits to the organization are inextricably linked to the benefits of the learner. It is a mutual process.

CHALLENGES FOR VET

The challenge for VET is its ability in the short-term to see a significant growth in the VET market by expanding into the workplace to create a world competitive workforce. This can be achieved by:

- VET providers recognising the potential for growth of their market share from VET learning in the workplace.
- VET providers adapt traditional teaching and learning practices into the workplace-at the same time providing innovative flexible solutions by:
  - > taking a proactive approach to workplace learning and training-e.g. this may include empowering the organisation and learner
  - > delivering recognisable and transferable skills
  - > using training packages to benefit both the organisation and the individual-as a tool to encourage learners to extend themselves and to improve work practices.
- VET policy makers making more effort to support workplace learning-through national implementation guidelines to meet the needs of organisations operating at a national level and by expanding current funding arrangements for workplace learning and existing workers.

CONCLUSION

The achievement of quality workplace learning is strongly dependent on the development and implementation of a structured workplace learning program that is dependent on the provision of ongoing support throughout the learning program from the supervisor and/or registered training organisation. The learning program must be flexible and requires:

- commitment from management to facilitate a culture of open-learning
- commitment from the learner to undertake the program
- the knowledge that all parties are fully informed and understand their roles and responsibilities
- learning resources that address national competency standards and business objectives
- learning to be action-based and provides work related outcomes
- learners to be responsible for their own learning-the adult-learner approach
- partnerships to be established-trust of peers, supervisors and facilitator/s
- the ongoing support from the supervisor or registered training organisation to facilitate, coach, mentor, train and assess.

At the very least, the ATC's research into best practice achieved quality workplace learning through the implementation of a flexible learning program with outcomes that met the needs of the organisation, the learner and the national competency standards. A major factor in both case studies was the use of flexible self-paced resources that provided a structured program for the learner and workplace supervisor. These resources and the support from the workplace supervisor and registered training organisation were pivotal in the demonstration of best practice in both case studies.

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The RAVL symposium: new questions about work and learning

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In this symposium, members of the Researching Adult and Vocational Learning group at the University of Technology Sydney discuss new questions about work and learning they see as arising from the growing emphasis on learning throughout life and beyond formal educational settings. This trend recognises the workplace as an important site of adult learning, leading to questions about how we are to understand learning at work, yet it also fundamentally challenges the relationship of workplace learning to formal education, since institutions are expected to adapt themselves to the demands of the workplace and working life.

RAVL scholars are currently drawn to examine forms of 'work-based learning' and 'wholly work-based training' where the entire educational program is organised in the workplace and learning is negotiated around 'the curriculum of work' instead of the formal curriculum. This radical departure from traditional patterns gives a new degree of educational recognition to 'working knowledge', and partnerships between enterprises and educational providers become significant, as do questions about what influences are moving educational policy in this way.

The RAVL group is based in the Faculty of Education and a number of research associates in other universities. It draws expertise from developmental psychology, philosophy, adult learning, human resource development, educational theory, policy studies, political economy and applied linguistics. Further information can be found on the RAVL website at (www.ravl.uts.edu.au).

CONTEXT: POLICY, INSTITUTIONS AND KNOWLEDGE DISCOURSES

For well over a decade the educational policies of most OECD countries, including Australia, have been dominated by economic discourses that emphasise the need for all educational sectors to contribute to national economic imperatives. Embedded within human capital theories of economic performance, the policies of new vocationalism are grounded by the idea that economic performance is intimately connected to the level of skill and ability of a nation's workforce. In many ways, this policy position should have heralded a renaissance in educational institutions that have always laid claim to a close and explicit relationship with the world of learning and work. TAFE and the technological universities that emerged after the Dawkin's reforms to Higher Education in the late eighties have for the most part constructed their identity in terms of preparing their students for the world of work.

However, recent research suggests that these institutions are not experiencing any policy driven re-invigoration of their activities. Indeed many commentators suggest that these institutions are in crisis (Grubb 1996, Shain & Gleeson, 1999, Chappell 1999). Some point to reductions in government funding and the insertion of more market focused, commercially oriented business practices into these institutions. Others suggest that increased competition in an increasingly privatised education and training market has also contributed to this crisis. While others point to the de-institutionalisation of learning brought on by the privileging of informal, workplace and organisational learning that takes place outside of formal education and training institutions (McIntyre & Solomon forthcoming).

While not denying the truth of these claims, in this symposium, we want to suggest that this crisis is also a consequence of the emergence of new knowledge discourses that have, in one way or another, disturbed traditional ideas about what counts as knowledge. These discourses, while emphasising the crucial importance of knowledge in contemporary societies (Castells 1993:15-21), at the same time, and somewhat paradoxically, question the adequacy and utility of the content, organisation, production and transmission of knowledge found in all modern educational institutions.

These discourses undermine modern understandings of knowledge by reversing the traditional binaries that once privileged one form of knowledge over its 'other'. Today, epistemological discourses appear to privilege knowledge constructed as practical, interdisciplinary, informal, applied and contextual over knowledge constructed as theoretical, disciplinary, formal, foundational and generalisable. Or as Gibbons (1994) and Luke (1996) put it, there has been a significant shift in emphasis away from 'culturally concentrated' (academic) knowledge to 'socially distributed' knowledge.

Although there has been considerable discussion over why this shift in emphasis has come about there has, as yet, been very little focus on the consequences of this discursive shift for educational institutions, educational practitioners and learners. Yet these institutions and the people that work in them are in no small measure constructed by and through knowledge discourses. Therefore it seems highly likely that this contemporary re-construction of knowledge inevitably leads to a re-construction of educational institutions and the people that work in them.

In this symposium we examine these new knowledge discourses in order to surface the enabling and constraining effects these discourses have. In summary, we will explore three kinds of new questions about work and learning:

- *Knowledge*. What new knowledge discourses are emerging to challenge the adequacy and utility of the organisation, production and transmission of knowledge as it has been practised in modern educational institutions?
- *Institutions*. How do these new knowledge discourses challenge the foundations of vocational curricula based in assumptions about occupations and working knowledge? Do we need to re-construct educational institutions and the way people work in them?
- *Identities*. How do these changes challenge our existing models of learners and vocational professionals? What new pedagogies and curriculum models do they imply, and how does this foreshadow a re-thinking of institutions?

QUESTIONS ABOUT VOCATIONALISM AS A DISCOURSE OF POLICY

The trend for national systems of education to embark on policies of vocationalisation may not be new, but the rationale for such changes is new-linking systems of education into the economy, under the auspices of neo-liberalism. This has seen the winding back of many government instrumentalities under a generalised policy of fiscal stringency and the subjection of public goods such as education and welfare to the forces of the market (Marginson, 1999). And this is at a time when the demand for such goods has never been higher. In the case of higher education, this demand, which continues to be unmet, stems from a number of factors.

One is the dramatic change to the labour market fuelled by the forces of globalisation and information technology (IT). The former has seen the de-industrialisation of many western economies, including that of Australia, and the location of productive activity in developing nations, in south east Asia, in Latin America. IT has been equally devastating in its impact, and led to the extinction of many jobs in the manufacturing and commercial sectors. Suffice to say IT has destroyed many more jobs than it has created. Those it has, have been in the "knowledge industries", that emergent sector of the economy in which the main 'terms of trade' are information and epistemological commodities-broadly defined as everything from e-commerce through to genome project.

It is the emergence of this "knowledge capitalism" (Burton-Jones, 1999) that has helped to revive the significance of higher education for the economy, and led to a style of vocationalism wherein the links between employment and knowledge are more overtly expressed and are articulated in different ways. Although much has been written about the changes which higher education has undergone in the last two decades, there is dearth of commentary about the degree to which universities have become vocationalised and have moved away from the liberal ideals that characterised them in the immediate post-war period. These ideals were forged in the nineteenth century, around the thoughts of John Stuart Mill and Henry Newman. They saw the universities as asylums from the 'real world', where the development of the inner self was championed, and the professions were shunned. Although this became a smokescreen for preserving what were essentially elitist institutions, it did become a defining ordinate for a certain form of university polemic. This held out for an institution that was not accountable to either the economy or the professions but could be, in its 1968 versions at least, an arena of oppositional thought (Symes, forthcoming).

The truth is, of course, that universities were never chapter and verse incarnations of the liberal ideal but, in various ways, were always garnished with a certain amount of vocationalism (Usher, forthcoming). They contributed to the vocational formation of the individual in an indirect way, through courses of study that fostered general intellectual and ethical capacities having application across a range of professional endeavours, from the public service to the church. This has been superseded by a more direct vocationalism, where there is closer accommodation between study and work.

The most overt manifestation of this "new vocationalism" is in the new faculties that were established during the 1980s and 1990s. The bulk of these were in areas such as teaching, nursing, policing in which relevant training was previously conducted in industry-specific colleges and also new areas such as tourism, business, information technology, communication studies, sports and leisure studies. These represent growth areas of employment in the post-Fordist economy, that is more dependent on symbolic and numerical analysis, of the kind, university graduates were thought most able. Moreover, universities now promote themselves through their "symbolic economies" as belonging to the real world and as places that deal with useful, working knowledge, that obtain jobs for their graduates (See Symes, 1999). And even those areas, such as English and philosophy, which were once situated as the bastions of the 'liberal' university, have moved with the more pragmatic times and begun to reconfigure themselves in such a way as to emphasise their use-value.

As a general observation, then, work is beginning to become the epistemological organiser of the contemporary university, and usurping the position formerly held by disciplines and fields of study. The most flagrant expression of this trend is manifested in the work-based degree, in which study for a university credential is partially undertaken within the context of work. This is a more developed trend in the UK than it is Australia, where a number of universities have begun to experiment with courses of learning outside the shackles of the traditional disciplines and boundaries of knowledge, and which centre on the problems encountered in workplaces. As well as challenging the assessment and curriculum parameters of university study (Boud and Symes, forthcoming; McIntyre and Solomon, forthcoming), work-based learning challenges the boundaries between work and learning, and the sites in which these take place. It also obscures or, makes them more permeable, the boundaries between universities and other sites of learning with a more decidedly vocational face, such as TAFE colleges and private providers.

In one sense such innovations are the products of a discourse environment in which concepts such as flexibility and accessibility have become clarion calls, under which any thing, just so long as its satisfies market criteria, becomes possible in higher education (Robins and Webster, 1999). After all, what could be more flexible and accessible than learning in worktime, at work, as part of, and for work! Yet one has to ask, at what cost?

The irony of the present condition of higher education is that the press for vocationalisation has also been accompanied by the idea that education should be self-funded, should not be a burden on the public purse. Instead, education is part of the asset formation of the individual. Investment in education is no different from investing on the share-market, for it provides the dividend of increased career opportunities and guaranteed returns in the labour market. Yet in reality business and industry are obtaining the vocational formation of their employees for free, from the pockets of young people who, in return for the promise of jobs, need to amortise their futures against education.

Another cost, is the degree to which a vocationalised higher education system compromises those ideals at the heart of the liberal university, and which centred on the cultivation of certain political and civic ideals. The collapse of the university into the apprenticeship factory for the post-Fordist economy could place at risk the cultivation of these ideals, which were acquired in courses of learning that were not palpably utilitarian. In which case the university for the real world might not necessarily be one for a better world.

QUESTIONS ABOUT ACADEMIC KNOWLEDGE AND WORK-BASED LEARNING

Work-based learning is one expression of the 'new vocationalism' in higher education that has many similarities with developments in vocational education and training generally. Work-based learning needs to be understood as one set of knowledge discourses that is currently emerging to challenge traditional conceptions of the university. Work-based learning leads us to consider the discursive practices that have both contributed to its emergence as well as those that contribute to the production of new kinds of academic subjects.

Work-based learning awards have particular characteristics. There is a shift to *work as the curriculum* (from a curriculum designed around disciplinary knowledge to a curriculum designed around work). It is negotiated since the curriculum design and delivery is worked out among several parties-the university (academic adviser), the learner, the organisation and a workplace supervisor. It is individualised since individual learners design their own program drawing on their current and projected work knowledge and experiences in consultation with their workplace supervisor and academic adviser.

Many promotional descriptions of WBL indicate the seductive appeal of WBL partnerships to various kinds of organisations and a diverse range of employees. For organisations, WBL offers a vehicle for linking individual learning to the development of corporate capabilities. It is a strategy for facilitating change and for retaining good employees. For employees, WBL provides an opportunity for gaining qualifications that incorporates their existing knowledge and experiences and that links learning to current workplace performance needs as well as to career development goals. Furthermore, WBL is seductive to universities, since it enables them to be collaborators with organisations rather than competitors in the educational qualification market, and it provides the university with the opportunity to establish long term relationships with corporations with a potential impact on all kinds of educational and research directions. Indeed this kind of reading of WBL reveals the attractive reciprocal gains for all participants.

Nevertheless this is not the only story to tell about WBL. Academics participating in WBL as well as those observing it at a (sceptical) distance, share an understanding of the variety of challenges that WBL presents to academic work. In this paper the focus is on a different kind of story`- a story that exposes and explicates these challenges and the conditions within which they have emerged. We have confronted head-on the multiple conceptual and practical challenges to our identity, our institutional structures and work practices. All of these challenges have contributed to a disturbance of our understanding of the role and function of the university, our understanding of what is legitimate academic knowledge and what are academic standards, our belief in the resilience of our discipline and in our teaching and learning practices.

Yet it can be asked whether work-based learning such a radical challenge. It could argued that WBL is just a natural extension of the increasing emphasis on professional vocational practice in higher education programs. We suggest that the argument (that WBL signifies the end of higher education as we know it) ignores the complexities around existing academic practices and the numerous other challenges faced by higher education institutions and academics, and propose that WBL draws attention to a radical shift in understandings about 'legitimate' knowledge and learning.

We would argue that WBL exemplifies many of the tensions in contemporary academic work that are a consequence of the changing relationship between contemporary knowledge and the university. These changes have meant that the university is becoming more open within its internal structures as evident in the increased number of cross-faculty courses and cross-disciplinary institutes and centres. But it is also more open in its relationship with the outside world as seen in the increasing number of entrepreneurial and research relationships with industry and government bodies. These openings are both cause and effect of the reduction in status of universities as primary producers of a particular kind of knowledge as well as the loss of their monopoly position as certifiers of competence in knowledge production (Solomon & Usher 1999). These losses not only have a symbolic significance, but also have a considerable number of practical consequences.

In WBL, the practices associated with the 'openness' of its organisational and curriculum structures (both within the academy and in its external relationships) present many of the challenges to the academy, to academics and to learners. It is useful to speak of the *discretion* or lack of it that is a feature and outcome of the partnership and curriculum processes around WBL. The more typical

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workplace learning episodes, such as professional placements and learning contracts, usually sit discretely within conventional course structures and understandings about academic knowledge and learning. In other words, these episodes are usually located within the boundaries of a subject or a project and therefore sit discretely within well-rehearsed and familiar structures that are accompanied by equally familiar teaching and learning practices. Furthermore, arguably, in these cases, the power or right of deciding the scope of these embedded workplace learning episodes, still resides with academics and within the academy. Accountability lies with the boundaries of the academy and the disciplinary community.

None of these applies to WBL. Academics involved in WBL no longer have the sole right to decide what is to be learnt or how it is to be learnt. The accountability is no longer self-referential but extends into the boundaries of the workplace. Moreover, at the macro-level, the primary point of departure is not a conventional area of knowledge or learning but rather work, the workplace and the learner. In WBL the structural arrangements, as well as the sequence of learning events, begin with the learners and their workplace and then look to the university. Subject units become subordinated to the program driven by the nature of work. This is in contrast to more conventional courses, which tend to begin with the university and its conceptions of what is legitimate knowledge, before moving to the workplace and the learner.

A related concept is the *co-production of knowledge* that goes with the change in the discretionary practices of the academy and the loss of singular control of WBL awards, which are based on partnerships. The establishment, management and processing of these partnerships is a collaborative one involving many different kinds of relationships. The award is initiated by and organised around a contractual partnership between the university and an organisation. This is then complemented by a contractual agreement with each learner as the learners write themselves into the partnership with an individualised learning program that has been negotiated in partnership with an academic and a workplace manager. Furthermore work-based projects are supervised by both the workplace and the university. All of these relationships, processes and 'products' have to take into account the different social structures, histories and understandings about knowledge and learning of each of the various partners.

The process of developing a WBL partnership and a WBL program involves working with rather than ignoring these differences. This is not to argue that in conventional learning experiences the learning process is a non-interactive or uncontested one. Such an argument ignores the way the processing of new knowledge always connects with the learners' existing experiences and knowledge. However in WBL, these processes are visible and indeed part of the learning experience. In other words the negotiations and integrations are necessarily 'on the table'.

Moreover the 'partnership' model actually foregrounds the different relationships through which the curriculum unfolds. The use of the word 'partnership' with students is not part of the conventional discourses of higher education learning. Those discourses reflect and contribute to a kind of unilateral control (Heron 1988) by the academy which is symptomatic of a model of learning that is hierarchical and authoritarian. On the other hand, the 'partnership' discourse suggests a more equitable decision-making process.

However the more democratic drift in WBL is not necessarily an unproblematic one. Indeed we would argue that the collaborative processes in the co-production of knowledge involve many layers of politics and contested power relations (see also Garrick & Kirkpatrick 1998). These emerge because of the 'openness' and 'relational' nature of WBL where the merging of the different discourses, of the different views on what is legitimate knowledge, of different agendas and expectations are, not surprisingly, sites of contestation. For example, while academics may understand that the development of critical thinking and reflective practitioners should be a central feature of post-graduate study and of contemporary work, this may not be shared by the workplace management or by the learners' supervisors. Furthermore a workplace supervisor may not have an interest in working with the employee in a learning arrangement.

But in addition, WBL is also a site and exemplar of the new power relationships and resistant practices within the university itself. The radical nature of WBL encourages a degree of scrutiny by the university and by academics who are concerned about the quality and standards of university awards that are tied into organisational performance and productivity needs. Frequently in the development of more conventional courses, there is less scrutiny and therefore less need for argument about the quality or standards of the particular modes of learning, the 'content' of subject units or the appropriateness of assessment practices. Furthermore the transdisciplinary nature of

WBL awards at times provokes a disciplinary territorialism as a counter-reaction. This is manifested at a practical level in the efforts, by some, to foreground a particular body of disciplinary knowledge in individual's WBL programs and at a conceptual level in the efforts to diminish the significance of the relationship between the mode of learning in WBL and the content of that learning. These struggles can be understood as part of a 'healthy' academic debate on what counts as academic learning but they also have powerful material consequences - for example on the kind of advice that academics provide on the 'content' of the learning program and on the assessment of individual's programs where judgements are made about level of the award based on its disciplinary content.

Together the different positions of the participants, the flexibility of the programs (in both content and mode), the changes in the discretionary practices of academics, and the emerging complex power relationships all have implications not just for curriculum structures and practices but also for the macro-structures within which the curriculum is 'contained'.

QUESTIONS ABOUT VOCATIONAL INSTITUTIONS

One implication of the development of work-based learning awards in universities is the challenge to the legitimacy of the established knowledge discourses that have defined and maintained educational institutions. There is an argument that those Australian universities and technical and further education institutes sharing a common history in technical education are approaching if they are not already experiencing a crisis of legitimacy, where their monopoly over the transmission and regulation of vocational knowledge is being broken down.

We need to see the obvious parallel between the wholly-workbased vocational learning based on the ANTA 'training packages' and the wholesale trend of universities to develop wholly -work-based degree programs in partnership with corporations. Our argument is that this cannot be simply sheeted home to policies of corporatising the public sector so that it is eventually more responsive to a society that is internationally competitive in economic terms. Much analysis emphasises the neo-liberal impetus of the state's restructuring activities, letting institutions bound off the bureaucratic leash into an entrepreneurial marketplace. So beyond policy inventions, how far is the valorisation of workplace learning motivated by changes in the workplace and particularly the knowledge demands of contemporary work captured by the supposed 'knowledge economy'.

In short, are new knowledge discourses emerging to challenge the way that working knowledge has been thought of in the past? To what extent is there a legitimacy crisis of vocational institutions that is due to changes in contemporary working knowledge as well as (and in interaction with) the politics of the lean and mean competitive state in a globalising economy? I suggest this is a real conundrum worthy of analysis, for there are some neglected aspects to the debate that arises from the thesis that 'training packages' and the customisation of work-based learning degrees are mainly to be understood as a policy demand of governments as they intervene to re-shape institutions to make them more responsive to the impacts of globalisation on national economies, their politics and social institutions. Is the increasing valorisation of the workplace as a site of learning just a policy solution to a range of problems that both employers and institutions face or something more profound?

We need to ask again how curriculum institutionalises knowledge and regulates it - particularly knowledge that is deemed to be technical or vocational in its connection to occupations. Curriculum is currently a neglected focus for analysing the restructuring of institutions that has been going on for some time through educational policy, and it provides a perspective on the rise of forms of wholly work-based programs. Nicky Solomon and I have put forward a 'de-schooling vocational knowledge' thesis (McIntyre & Solomon in press) that outlines how the very concept of knowledge codified in curriculum is under siege, and indeed that new forms of knowledge production are leading to working knowledge being 're-codified' in terms of workplace practices, with many implications for the concept of vocational teaching especially the emergence of new VET professionals who are able to work across institutional boundaries.

Though there has been a lot of attention given to the logic of the 'knowledge economy' as 'new economy' there is as yet little attention by VET commentators to the destruction of old knowledge codes that wholly-work-based training implies. So it may be useful to ask what does the 'de-schooling' of vocational knowledge entail and why is this the Trojan Horse by which publicly-funded institutions might be dismantled in the new century, just as they were developed in the old? The focus has been on the stresses and strains of restructuring that has demanded more 'flexibility' and 'responsiveness' in the relationships between enterprises and institutions - TAFE institutes and universities alike. The neo-conservative nature of these policy reforms may have encouraged vocational educators reasons to resist change rather than ask what kind of adaptation might be needed to survive the changed conditions of 'working knowledge?-if indeed this is the case.

The debates about competency-based training occasioned by national policy intervention in Australia turned on issues of the desirability of such reforms, often judged from the perspectives of vocational eductors and the subversion of their professional competence by imposed curriculum change. It is rare to hear it argued that the formal vocational institutions are in a deepening legitimacy crisis regarding their relevance and economic role.

Academics let alone vocational educators have never much liked the idea that they were protecting their own monopoly over certain kinds of knowledge just as skilled trades controlled margins for skill through apprenticeship in the 'old' blue collar occupations. The resistance to theorising knowledge stratification in vocational education now makes it harder for vocational institutions to see how the 'codification' of such knowledge is under threat by work-based learning. The notion of a 'knowledge code' and the breaking down of a code needs some analysis. Without going back to the perspectives developed by Bernstein and other sociologists, the key point is that particular knowledges are constructed and organised and regulated through the curriculum in the interests of particular social groups. A key process, especially in respect of vocational or technical knowledge, is the formalisation of highly contextualised working knowledge in technical curricula - for example, the twenty types of clutches that the automotive apprentices used to have to learn about. This formalisation cuts off knowledge from its context of application and renders it abstract and general - and above all, remote from everyday, tacit and contextual application, and everyday informality in use. This is knowledge 'schooled' for transmission to the novice in the hope they will then be able to contextualise or 'apply' it in the workplace, when of course, they are credentialled to do so.

From a historical perspective, the shift to designing programs for the workplace and delivering them at work and in terms of learning at work represents a reversal of the formalisation of 'vocational learning' in technical and vocational institutes that has occurred over a period of massively expanded institutional provision in the post-war period. Hence the discovery of the 'informal learning' of the workplace as the 'real' site of learning, carried through to the informalising of vocational curricula (in training packages) is tantamount to a de-institutionalisation of vocational education.

The term 'formalisation' is a significant concept in understanding the way institutionalised vocational education is in crisis over work-based learning. A large amount of attention is being paid to 'informal learning in the workplace' as the antithesis of formal vocational education (eg Watkins & Marsick 1993, and in Australia Garrick 1998). The emphasis on informal learning can in fact take for granted the question of what it means to 'formalise' learning and adult education, and it can take for granted questions of what is learned and what counts as knowledge in the workplace.

There is a significant potential for misunderstanding the nature of work-based learning qualifications discussed by others in this symposium. This is not the same as informal workplace learning, though such a work-based qualification may utilise and indeed depend on informal learning. The significant point is that work-based learning awards *formalise work-place learning*, subjecting it to educational processing of various kinds, particularly through intensively negotiated curriculum and assessment practices.

We suggest that 'new and different kinds of boundaries provide the framing around work-based curriculum ... which does not become unbounded or de-regulated, that is, without any framing, but rather the framings and representations are different, locally specific, more complex, more contested and more fluid'. To labour the point, this is a *new institutionalisation* of vocational knowledge. This is the basis for some of my assertions later in the paper that work-based learning is not only 'de-schooling' traditional educational practices but activity 're-schooling' workplace learning through re-codifying workplace knowledge and reconfiguring the professional roles of vocational educators (McIntyre & Solomon 1998). Work-based learning can be seen as 'deschooling knowledge' in the sense of 'de-codifying' vocational knowledge as formal curriculum and, importantly, 're-codifying' it in terms of dynamic workplace knowledges (such competencies). How this occurs, and with what relationship to practices utilising for corporate ends the 'informal learning in the workplace' or to workplace training activities, is an interesting matter.

So the question is, do we need to rethink our vocational institutions if their established curriculum codes are being undermined by forms of wholly-workbased learning? What other perspectives, such as economic ones, might help us to understand in what form these institutions might prove to be durable, if after all, developments such as the 'knowledge economy' drive increased demand for access to formalised vocational knowledge and their associated qualifications-at least for some advantaged clienteles, and at some private cost.

QUESTIONS ABOUT PROFESSIONAL IDENTITIES AND KNOWLEDGE

In this section we examine the effects of new knowledge discourses on the identities of a group of vocational education and training teachers and a group of workplace educators. Our examination is based on recent research involving an analysis of how educators working in different contexts construct and negotiate their working identities.

When vocational teachers speak of their work they place a great deal of importance on the industrial experience they bring with them to their teaching. They commonly speak of the importance of 'knowledge of industry', workplace knowledge', 'technical competence', knowledge relevant to industry' and their 'practical experience' of work, in their teaching.

By emphasising the practical over the theoretical, applied knowledge over academic knowledge, experiential knowledge over disciplinary knowledge and contextualised knowledge over generalisable knowledge vocational teachers construct an identity that is distinct from the identities of other educators. Unlike most university and school teachers, vocational teachers generally lay no claim over the academic knowledge represented in the disciplines that grounds much of the curriculum in higher education and schools. Rather they claim to specialised vocational knowledge and workplace expertise gained through their experiences in particular industries and occupations.

However the talk of vocational teachers also reveals that this claim to specialised, vocational knowledge and its application is also become deeply problematic. They speak consistently of the need to 'keep up to date' with industry and to maintain their 'industrial expertise'. Many also explain this need in terms of maintaining credibility with students.

This commonly expressed view suggests that vocational teachers believe their educational identity, particularly in the eyes of students, is dependent on their industrial expertise. In effect they use this industrial experience as a distinctive marker that confers legitimacy on their occupational identity. The discourse of industrial expertise therefore appears to do similar discursive work for vocational teachers as disciplinary knowledge does for many teachers working in universities and schools.

This similarity however is only a partial one. In the world of the vocational teacher the ability to 'keep up-to-date' is given additional importance because many of their students are not only learners but are, at the same time, workers. Thus they are able to make an immediate and on-going evaluation of the industrial expertise of the vocational teacher. The utility and currency of the vocational knowledge and skills that they share with students can be tested immediately by these students in their working lives. It is in this sense 'practical' knowledge and is judged not in terms of its claims to generalisable 'truth' as in the case of discipline-based subjects but rather its performativity in the workplace. Consequently, a vocational teacher's credibility as 'industry expert' is always open to question and further compounded by her location in an educational site rather than an industrial workplace.

This educational site puts considerable pressure on the discourse of industrial expertise that vocational teachers use to construct a legitimate educational identity. For this educational site is one characterised by different discourses and sense making constructions than those that circulate in modern workplaces. These educational discourses, for example, work to formalise 'industry knowledge' by deploying traditional curriculum technologies that compartmentalise knowledge into subjects, hierarchies, sequencing strategies and levels of achievement. They impose particular pedagogical and assessment practices into the learning process. And through these disciplining discursive practices the contextualised knowledge of work is re-represented as generalisable vocational knowledge of particular occupations.

As a consequence vocational teachers identities are in some senses fashioned across the discursive space that constitutes working knowledge as different from traditional knowledge.

Vocational teachers use the discourses of working knowledge to construct a legitimate occupational identity that is different from the identity of teachers working in other sectors of the educational project. However, their location within modern education also means that vocational teachers draw on educational discourses and sense making constructions to legitimise their identity as professional educators. They undertake teacher-training programs that foreground traditional curriculum practices. They are encouraged to theorise their pedagogy through the discourses of educational psychology, sociology and academic research. Moreover, these discursive practices are based on traditional views of knowledge that privilege knowledge that is formal, theoretical, generalisable and foundational.

The workplace educators (called facilitators) discussed here have been drawn from within the ranks of their own organisation. These employees either worked for years on a production line, or they have been leading hands or supervisors. Now they are involved in moving from the production line to the meeting room - a shift from doing to talking. The shift to this site of work and learning by workers, and the valuing of new kinds of knowledge by managers and employers, is producing new kinds of identities. This (re)formation of social relations and identities coupled with new knowledge and modes of knowledge production are the focus of ongoing negotiation and struggle in the workplace.

This workplace is a manufacturing enterprise where the construction of the competent worker emphasises problem-solving, consultative committees, quality circles, formal and informal on the job training etc all of which involve more and more talk as well as more reading and writing. The textualisation or languaging of the workplace is a significant shift in industrial work practices and works to discursively construct and value new kinds of work-related knowledge.

This is a company that brought in a new management team six years ago to restructure the previously family-run organisation. Management followed a now accepted pathway of developing a mission statement and a set of core values ie the establishment of a new culture; a way of thinking whereby particular social identities of workers are constructed, and related social practices which they were expected to learn, demonstrate and value, are outlined. (Gee, Hull & Lankshear, 1996). The mission statement and core values began a process of textualisation of the workplace where the mission and values were reproduced on factory walls; in training manuals as well as in company annual reports and the like. The workplace and the workers were being defined in particular ways. The mission or goals of the workplace could only be attained if work practices, constituted here as core values, were inscribed as part of the identity of each of the workers. The values of the workplace are the values, thus part of the 'being , of each worker.

A major change was the creation of a new section or department comprising a manager and five educators/facilitators whose function is to set up, organise and develop workplace teams. The changing subjectivities of these key people as they assume very new work roles is foregrounded as they struggle to reconstruct themselves: a struggle where they are positioned by management and by co-workers as well as consciously repositioning themselves. Within the unit the discursive construction of selves is a central activity as the educators/facilitators juggle new responsibilities and confusion about their power and a search for a secure location. One of the facilitators tries to explain their position in the organisational structure as:

'The unit manager comes under the production manager so he's higher than the plant manager, and we're supposed to come under him, but we are not higher than the team leaders. I don't think we're higher than the people on the floor. I think mostly my level's there on the factory floor.'

As they struggle with their own identities, there is a recognition that the human production line working towards the alignment of selves and work is not necessarily one with glitches which must be straightened out or solved by following the procedures in training manuals, but rather it could be seen as a site of on-going discursive construction of how and what to be in the new workplace. They constantly question and comment on what is going on. The facilitators realise that it is possible to work like this in a more postmodern condition. Their discourses include cries of confusion about their 'real place', but they actively use this as a flexible position whereby they try out the new and different.

That is, the facilitators see possibilities in hybridity. They are central players in the breaking down of boundaries; they are active subjects rejecting the fixed parameters and binaries of the 'old' work order' including notions of strict, linear pathways and traditional knowledge claims. This recognition of uncertainty is what may lead to outcomes which had not been envisaged. The facilitators are not a neat fit with clear lines of power and responsibility. However, to see this position as a (re) location with the potential to open up a space for different approaches to and processes of work, is part of the struggle for developing subjectivities which engender both feelings of insecurity and liberation.

Workers in industry are thus engaging in practices beyond the 'doing' or even the supervising of the 'doing' of the factory floor. As they move to the meeting rooms and their new facilitators' offices, they move from secure and comfortable traditional knowledge and practices bounded to a large extent by the materiality of the production line itself to working knowledge that is concerned with constructing and maintaining social relations through discourse work. It is not that the 'old' knowledge is no longer relevant, but rather that it is no longer enough. The walls of the factory floor no longer provide a bounded context for new work. The industry workers discussed here are people who are acutely aware of their changing identities. For the facilitators (and workers on the production line) it is not so much about how to work in teams and how to problem-solve and be participatory, but rather how to 'be' and 'do' in this context of new discourses and new knowledge.

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A further local participation study: TAFE and ACE in Melbourne postcodes in 1996

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A previous paper (McIntyre 1999) reported empirical findings from an analysis of TAFE participation patterns in greater Sydney using 1996 data and socio-economic census data mapping using ABS CData96 (ABS 1998a). That study followed from the thesis that national policy is neglecting local and regional factors and that VET research needs to engage with socio-economic variations in participation through local equity analysis (McIntyre 2000). The article recommended a focus on the geographical distribution of target equity groups who are often concentrated in clusters of postcodes with a profile that is disadvantaged, as judged by indicators of family income, employment and educational qualification.

Such studies are recommended against the background of a critique of equity policy constructs such as the 'representation' of 'target equity groups' which appear to be designed to soften the confronting trend to increasing social and economic inequality. VET researchers have clearly pointed out the shallowness of 'equity' in VET policy by pointing to the compounded nature of social and economic disadvantage-the statistical association of low educational levels, poor employment, poverty, isolation and cultural group affiliation (Golding & Volkoff 1997, Volkoff & Golding 1998, McIntyre 2000).

THE SYDNEY POSTCODE STUDY

The earlier study aimed to compare Sydney postcodes in terms of various rates of TAFE participation and to examine differences among high and low participation postcodes. The objective was to determine to what extent TAFE participation in Sydney postcodes reflected the employment and educational levels of their residents, particularly in disadvantaged areas. A secondary question was whether equity groups known to be concentrated in a given postcode are represented among TAFE participants residing in that postcode. No assumptions are made about where these residents attend TAFE.

The Sydney and Melbourne postcode studies are examples of 'area participation analysis', one of several forms of locality analysis (McIntyre 2000). This method compares a large number of areas on their rate of participation for a given year and their VET client profiles, as distinct from 'provider catchment analysis' which examines to what extent these participants attend a local provider (for an ACE example, see McIntyre Brown & Ferrier 1996). Differences in among high and low participation postcodes can be examined in terms of social and economic indicators known to be associated with adult participation, such as higher levels of education, occupation and income. From an equity perspective, the question is not only about the participation rates of disadvantaged postcodes but whether disadvantaged individuals from these postcodes are represented in provider client profiles. A third kind of analysis looks more closely at catchment and local participation to establish to what extent a provider is successfully reaching 'target equity groups' living in the area.

Some terms need definition. A TAFE participation rate is calculated by expressing the number of net students enrolled in TAFE in a given year as a percentage of the adult population (defined as those aged 15 and over, as estimated from a 1996 census count or more recent ABS surveys). Net students not enrolments are used. A TAFE postcode participation rate expresses the total number of clients living in a postcode as a percentage of the postcode's adult population in the reference year. Similarly, and given adequate client data, ACE and private VET participation rates can be calculated. The term 'disadvantage' is problematic, but here socio-economic disadvantage is meant, as measured for areas using some index calculated for areas (ABS 1998b) or selected social indicators such as level of qualified residents in a postcode. Regarding VET participants, AVETMISS provides individual client data that can be taken as markers of underlying socio-economic disadvantage namely unemployment and low level of schooling. For comparability with census data, the reference year is 1996.

The Sydney postcode participation study found that 1996 TAFE participation in Sydney is highest in the outer Sydney postcodes of outer western and southwestern suburbs, and lowest in the more affluent inner city suburbs, which have higher university and ACE participation. Outer south-western and western Sydney postcodes include many areas regarded as disadvantaged in terms of social indicators such as post-school qualifications, lower labour market participation, greater unemployment and lower household incomes.

The study also compared rates of participation including: the proportions of TAFE clients from a postcode who are enrolled in stream 3000 and 4000 courses as distinct from educational preparation, Stream 2000. Other measures include the proportion of clients who are employed or those unemployed and the proportion of clients with low educational level, estimates made possible by the reliable data furnished by AVETMISS. Such measures indicate, at least on the face of it, to what extent socio-economically disadvantaged individuals were participating in TAFE.

In Sydney, those postcodes with high TAFE participation were shown to have higher levels of participation by these groups. Those postcodes which are high on social indicators of non-English speaking background have in general, high NESB TAFE participation rates. Postcodes with relatively large populations of indigenous people also have high ATSI participation rates. The most striking finding illustrated by a map in the 1999 paper was that in 1996 there were high rates of participation by TAFE students of NES background in those inner western Sydney postcodes which the 1996 census showed had high concentrations of people born overseas in NES countries. In some NES postcodes, the proportion of NES TAFE clients was as high as 60% or over. This suggested that local populations of NES residents were enrolling in TAFE in significant numbers and in South Western Sydney providers are successful in achieving high levels of access, if not outcomes, for many groups of NESB clients.

The Sydney study suggested several questions for further analysis, particularly how far local providers' equity strategies are being reflected in local patterns of participation, particularly in disadvantaged areas. It is particularly important to closely analyse equity strategies of TAFE institutes at the campus level to establish to what extent they are responding to 'compound disadvantage' rather than nominal equity status (for example, whether an individual is of non-English speaking background). The high rates of local NESB participation may reflect the success of highly motivated and relatively advantaged NESB students accessing TAFE. Of course, as has often been pointed out, access does not mean course success or an equitable outcome.

Further, it is necessary to have fine-grained local studies in order to discover just how much of the TAFE participation in local postcodes occurs in local TAFE providers. The claims for greater policy emphasis on the 'community dimension' of VET of course rests on the assumption that much participation is local. The rationale for community studies would be invalidated by any great tendency for TAFE participants living in a provider's nominal catchment to participate outside the region. A recent NCVER study of distances travelled to TAFE confirms that the general pattern is for the great majority of participants to travel less than 20 km from their home to attend a course (NCVER 1999). Fine-grained local analysis can check to what extent this is so in a given locality by provider client profiling which can also answer questions about the kinds of courses that disadvantaged individuals might be enrolling in. The Sydney study suggested there were marked differences in Stream 3000 or 4000 and Stream 2000 participation depending on postcode socio-economic status.

Provider local equity strategies are being explored in an UTS-RMIT study in partnership with South Western Sydney Institute of TAFE and Chisholm Institute of TAFE, South Eastern region of Melbourne funded by the National Research and Evaluation Council (McIntyre & Volkoff in progress).

THE VICTORIAN CONTEXT

State and territory differences are frequently glossed over in the process of achieving consensus on national policy frameworks, when such differences might tell us much about what structures, policies and resourcing strategies make a difference to equity outcomes. It is especially interesting to compare the records of different kinds of providers in different states where this is possible. One state where this is possible is Victoria since it has a well-developed TAFE, community and private provider networks.

Victoria is particular interesting because there is good data permitting a comparative analysis of the clients of TAFE and ACE providers and the roles different providers may play in equity for potentially different clienteles at the local level. Historically, Victorian TAFE had a dual system of autonomous institutes and many technical schools that was different from the highly centralised but locally diffused NSW TAFE system. Victorian ACE has vigorous grassroots tradition and has over 400 mostly small providers, where NSW has 75, with Sydney dominated by a small number of large 'community colleges' based on the old evening colleges. Victorian ACE has a stronger ethic of community-based practice, is better integrated into VET planning and better resourced in comparison to NSW, and competes more with TAFE at the local level.

Thus participation patterns in Melbourne are likely to be complex; with interesting questions about how its many neighbourhood houses and learning centres relate to TAFE Institutes and to what extent they compete for clienteles or perform complementary roles. It may be that ACE performs important functions in bridging disadvantaged clients to employment and training in TAFE institutes, and pathways research has substantiated the Victorian claim they do so (McIntyre & Kimberley 1997), despite an ACE participation literature that shows adult education in general does not (SSCEET 1998). Thus, postcode participation patterns might reflect the interwoven nature of TAFE and ACE participation.

Another important relationship is signified by the term 'further education' which is used in Victoria alone (eg ACFE 1999), where ACE has carried to a great degree the language and literacy provision, reflected in high Stream 2000 and 3000 participation. The extent of overlap and competition between TAFE and ACE has increased due to both expanded ACE accesses to accredited VET delivery and the Kennett Government's dedication to competitive tendering of VET. This direct competition is rare in other states.

Without idealising Victorian ACE, it is possible that the comparative strength of its network may facilitate the development of equity strategies and outcomes, through a provider culture that is more responsive to the needs of local labour markets and social groups. An additional complication is that the very role that Victorian ACE organisations have claimed for themselves in achieving equity through targeting disadvantaged clienteles may mean that there have been less incentive for TAFE institutes to develop local strategies to address localised disadvantage.

Questions of this order call for analysis of patterns of participation at the local level, which are likely to be different from those in NSW where our research has established the marked differentiation of TAFE and ACE clienteles by postcode of residence (McIntyre Brown & Ferrier 1997, McIntyre 1999). To what extent then, does the co-existence of ACE and TAFE in Victoria encourage a differentiation of VET clienteles? What might postcode patterns of participation tell us about the inter-relation of community and TAFE providers in Melbourne?

TRENDS IN MELBOURNE POSTCODES

The Melbourne study first calculated separate participation rates for ACE and TAFE and a combined (public) VET participation rate. Thus a postcode might have (a) a high TAFE participation rate and a high ACE participation rate with a high overall combined VET participation rate. (High means relative to the average for Melbourne, not defined further here), or (b) either a high TAFE participation rate and a low ACE participation rate, or vice versa, or (c) a low ACE participation rate and a low TAFE participation rate. In the last case, the overall effect is a low combined or 'VET participation rate'.

The procedure then is to create a map of Melbourne postcodes and examine participation patterns in relation to socio-economic characteristics. The mapping of social indicators generated from census tables for a set of postcodes is made possible by the integration of census tables with geographic information systems software in CData96 (ABS 1998a). Counts of net students are combined with census counts to give participation rates which can then be mapped using CData96. Figures 1-3 provide examples of this methodology, which is capable of greater refinement than these first examples suggest. In these examples, postcode participation rates are mapped on to the 'underlying' map of variations in some social indicator, here, the proportion of the adult population aged 15 and over who held a post-school qualification in 1996 ('qualified' for short). Other measures, particularly household income are useful in mapping socio-economic variations (see McIntyre Brown & Ferrier 1997) and there are questions about how 'disadvantage' is to be defined using census data that are raised by such mapping. Again, this paper does not go into the technical details of this approach, including the possible use of disadvantage trage indicators (but see below). The analysis is broad and preliminary in character, and necessarily over-simplifies the complexity of socio-economic variations found within a postcode, as well as the trends in participation. Once a general picture is established, it is then possible to pursue fine-grained analysis of variations within urban regions of Melbourne.

Some limitations of this first analysis need to be noted. First, it did not examine all greater Melbourne postcodes (179 postcodes were studied), so outer Western Melbourne and other high TAFE participation areas are not included. Second, some postcodes were deleted from the analysis due to the limitations of Cdata96 (which builds postal areas from small census collection districts, so that population data is not available for certain postcodes). Third, some postcodes given by VET clients refer to post offices (eg. 3001) making it difficult to identify their home postcodes. Fourth, there are sources of error due to various factors such as the use of 'place of enumeration rather than 'usual residence' in census data, affecting some postcards more than others. If extrapolation to current trends is considered, then some postcodes will have changed more markedly than others in their population characteristics, particularly outer suburban areas. Finally, it is important to note that in comparing TAFE and ACE participation, net students are the basis for calculating rates. This eliminates the inflation of participation that would arise if enrolment were used, since an individual can have multiple enrolments in any year. Nevertheless, there is a difference in the course duration represented by TAFE and ACE students, since ACE offers many short courses. Again, all references are to 1996 data.

The maps given in Figures 1-3 are to be read in relation to the tables of participation rates and socio-economic indicators given in the Appendix. There are obvious limitations with maps in that they convey thin slices of information graphically, make only broad comparisons across Melbourne postcodes, and exclude some outer postcodes for the sake of intelligibility at a certain scale of representation.

The maps clearly suggest that there are socio-economic variations in VET (TAFE and ACE) participation in Melbourne, though the picture is a complex one. Many postcodes have a participation rate that must be considered high by Australian standards, with few less than 8.0% and many more over 15%. It is likely that these trends will also be found in Melbourne postcodes excluded from this analysis.

1. High VET participation

Forty postcodes with the highest 1996 VET rates are shown in Table 1. The highest rates fall in the range 13-25% with Selby (3159) exceptional (about 40%). In general, high rates are due to both high TAFE and ACE participation. The exceptions are Broadmeadows (24.8), Box Hill (20.6) and Dandenong (13.5) where TAFE accounts for most of the rate, as suggested by the ACE-TAFE ratio (the proportion of ACE students to TAFE students attending in 1996). Postcodes where high VET participation is mostly accounted for by ACE include Wattle Glen (23.2, ACE-TAFE ratio, 0.83), Park Orchards (20.4, 1.52) and Kangaroo Ground (17.9, 1.14). Figure 1 maps these broad patterns on to the distribution of the 'qualifications' social indicator (the proportion of persons aged 15 and over holding a post-school qualification in 1996). It is notable that large TAFE institutes seem to account for high local participation (eg Broadmeadows and Box Hill). Overall VET participation is varied across the socio-economic status of different areas. Thus disaggregating TAFE and ACE is necessary.

2. High ACE participation

Forty postcodes with the highest ACE participation are shown in Table 2. ACE participation is concentrated in the band of south-eastern postcodes running out to Selby, Wattle Glen and Kangaroo Ground, the inner city areas (Carlton, Flemington, Fitzroy, Collingwood, South Yarra) and the bayside suburbs (St. Kilda, Elwood, Brighton, Hampton, Beaumaris, Sandringham). Figure 3 maps this ACE participation (ACE as a proportion of all ACE and TAFE) on to the distribution of the 'qualifications' indicator, suggesting quite a strong association of dominant ACE participation with higher socio-economic status in Melbourne's more affluent postcodes. The strength of ACE participation falls away with decreasing levels of education (as measured by proportion of populations holding a post-school qualification in 1996). Figure 2 shows that high TAFE participation is, by contrast with ACE, associated with low socio-economic status as indicated by the qualifications indicator (though there is not, with a few exceptions, much variation within most of the postcodes, since many, even most, of the postcodes are in the 6-9% range). The older inner city suburbs are interesting because of their mixed socio-economic character (older, less skilled and poorer residents together with younger, more educated and more affluent people associated with the gentrification of the inner city. Research needs to explore to what extent these different groups are represented in the ACE clienteles of high ACE participation postcodes.

3. Low VET participation.

The forty postcodes with the lowest VET participation rates include clusters of postcodes in the northern suburbs (Greenvale 3059, Reservoir 3073, Noble Park 3074, Lalor 3075), the western suburbs (Glenroy 3046, Essendon 3033, Keilor Park 3042) and the north-western suburbs, that have somewhat higher rates (Knox City 3152, Bayswater 3153, Burwood East 3141). However, there are few postcodes with rates lower than 8% and overall many Melbourne postcodes have rates in the 8-10% range. Low ACE participation is contributing to lower VET participation rate in some of these areas. While lower socio-economic levels (lower household incomes and qualification levels) are typically associated with lower participation, particularly in ACE, it is also the case that the most advantaged areas of Melbourne have low overall VET rates (Toorak 3142, Caulfield 3161, Balwyn 3104, Brighton East 3187).

Figure 1. Combined TAFE & ACE participation, Melbourne postcodes, 1996

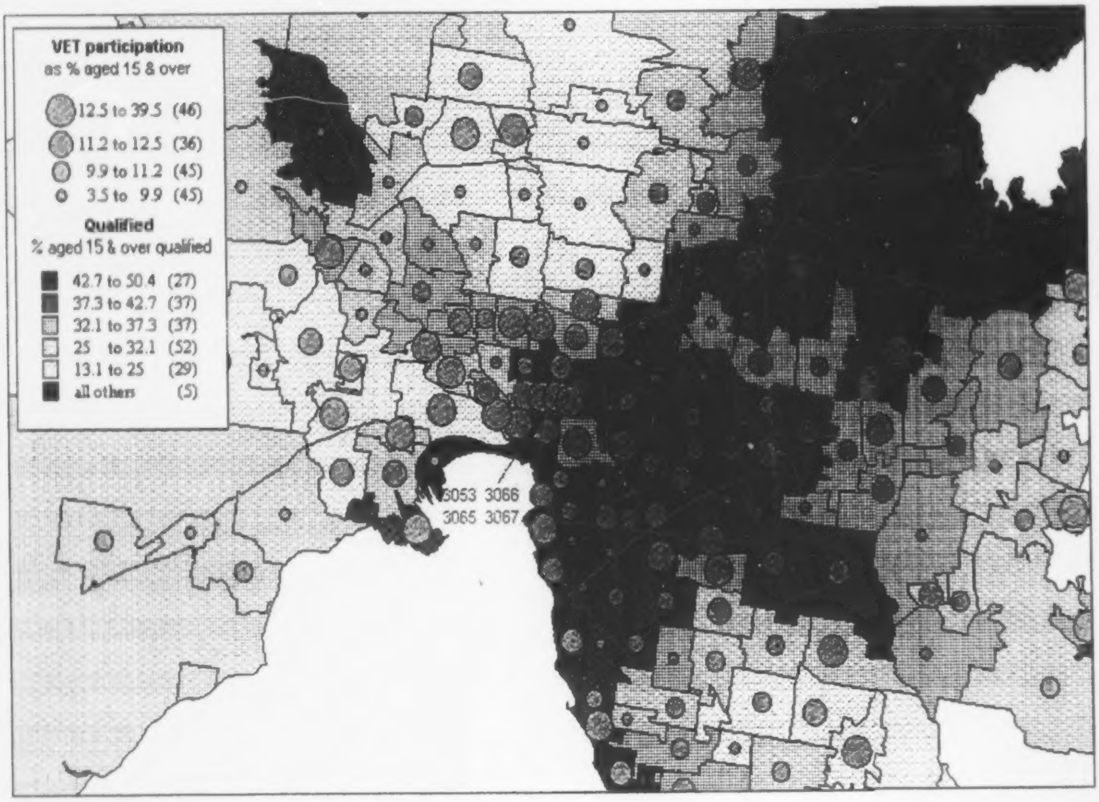

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Figure 2. TAFE participation, Melbourne postcodes, 1996

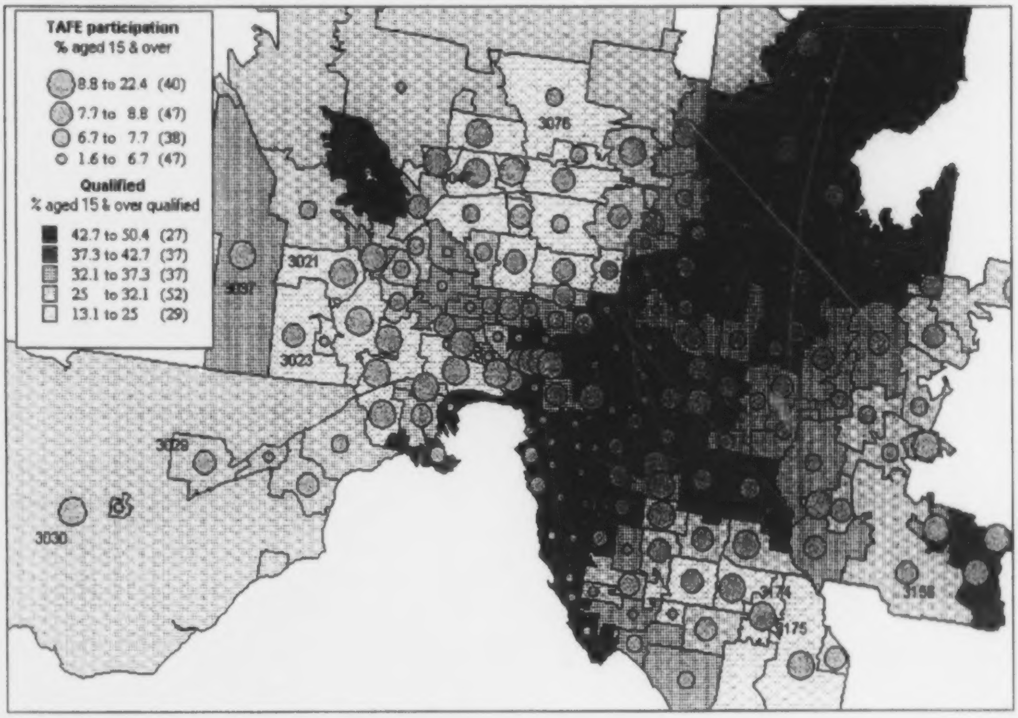
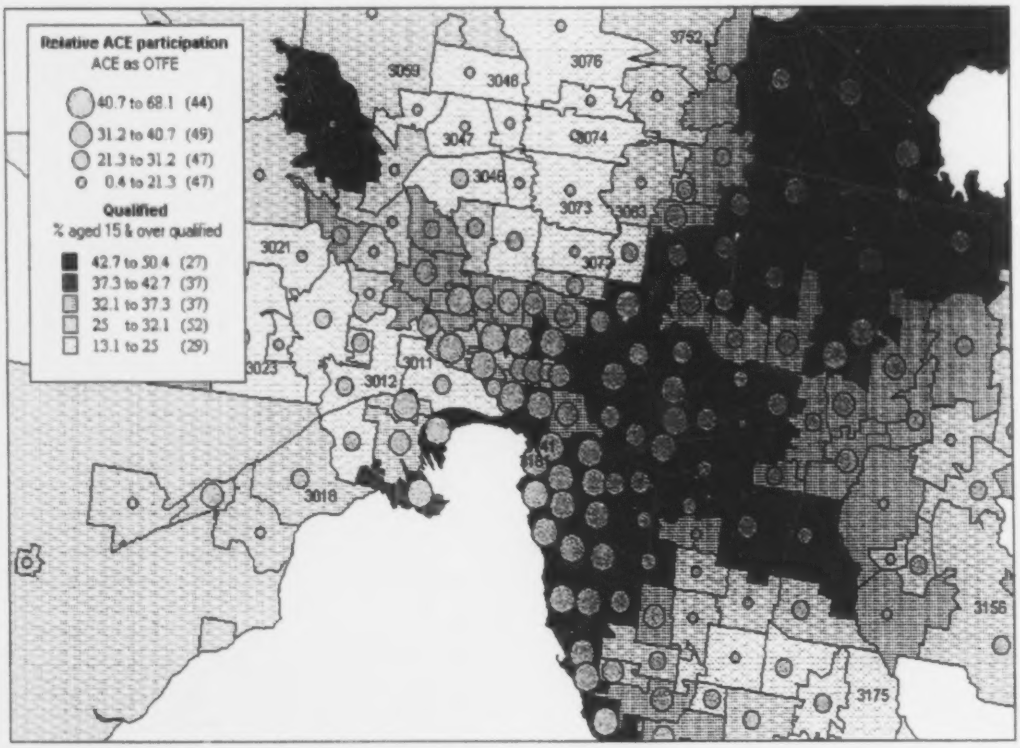

TAFE participation
% aged 15 & over
8.8 to 22.4 (40)
7.7 to 8.8 (47)
6.7 to 7.7 (38)
1.6 to 6.7 (47)
Qualified
% aged 15 & over qualified
42.7 to 50.4 (27)
37.3 to 42.7 (37)
32.1 to 37.3 (37)
25 to 32.1 (52)
13.1 to 25 (29)
3076
3021
3037
3023
3029
3030
3174
3175
3156

Figure 3. Relative ACE participation, Melbourne postcodes, 1996


Relative ACE participation
ACE as OTFE
40.7 to 68.1 (44)
31.2 to 40.7 (49)
21.3 to 31.2 (47)
0.4 to 21.3 (47)
Qualified
% aged 15 & over qualified
42.7 to 50.4 (27)
37.3 to 42.7 (37)
32.1 to 37.3 (37)
25 to 32.1 (52)
13.1 to 25 (29)
3752
3059
3048
3076
3047
3074
3046
3073
3083
3021
3072
3023
3011
3012
3018
3156
3175

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CONCLUSION

The Melbourne postcode analysis confirms the broad trend noted in the Sydney studies for TAFE and ACE participation to be differentiated by the socio-economic status of the postcode. However, the Melbourne participation maps show a good deal of variability in this broad relationship that needs to be explained. There are also considerable local variations in participation across adjacent postcodes. The general trend is for relatively high rates of participation with TAFE and ACE reaching most areas, yet differentiated to a degree by socio-economic influences. This complexity is consistent with the marked diversification of VET in Melbourne and a corresponding differentiation of clienteles and services in TAFE and ACE. The VET picture is, of course, incomplete without the mapping of participation in private providers. The implications of this for equity need to be further examined.

A number of issues with implications for equity policy need to be explored through further analysis of the Melbourne postcode data.

1. **Regional disadvantage effects**

   Research needs to examine more critically the concept of 'disadvantage' that underlies and is not adequately expressed in current notions of 'equity groups'. Here the postcode studies need to examine urban regional patterns of participation more closely, in their relationship to socio-economic factors. The relative strength of TAFE in outer western suburbs, and the south-eastern region, as well as the complexities of ACE found in inner Melbourne need to be examined in more detail in relation to questions of the kind and level of advantage or disadvantage that might be influencing the nature of the TAFE and ACE clienteles which are represented by postcode participation patterns. This more detailed analysis should employ a range of indicators of socio-economic status, such as the SEIFA Indexes (ABS 1999b) which distinguish measures of disadvantage, including economic measures (related to household income and housing) from educational-occupational measures. What the postcode studies demonstrate is that the regional distribution of disadvantage is a salient factor in VET participation that cannot be ignored by national or state policy interested in equity issues.

2. **Provider clienteles and equity**

   Further work needs to explore ACE and TAFE participation in those postcodes that have a mix of socio-economic advantage and disadvantage. How is this variability reflected in their VET participation? The central Melbourne postcodes are interesting in regard to the role of ACE in reaching local disadvantaged clienteles as opposed to relatively advantaged ACE participants in the same area. Here the SEIFA indices can be useful in indicating to what extent these postcodes have a 'social mix' that is being addressed by providers who are aware of their locality and its social diversity and differentiate their provision to meet a range of educational needs. What ACE organisations are developing equity strategies that reach such clienteles? Here, there is a possibility of linking participation research to a wealth of studies of good practice in adult community education that make strong claims about the equity role of neighbourhood houses and other ACE organisations (see ACFEB 1998, Bradshaw 1995, Falk et al forthcoming). Equally, it is possible to explore the extent to which TAFE provision is similarly localised and differentiated in terms of its 'equity clienteles'. No assumptions are made about how complementary such provision might be, and this needs to be analysed.

3. **VET clienteles and outcomes.**

   Further work needs to inquire further into the differentiation of TAFE and ACE provision across groups of postcodes in regions of Melbourne. If TAFE is most dominant in outer-western or southeastern suburbs, who are the clienteles served (in terms of their employment and schooling levels and cultural background) and more significant, what is the nature of participation in terms of the kinds and levels of courses taken? Though AVETMISS data has its limitations, it is still possible to measure the extent to which participation occurs in Stream 2000 area in TAFE, or ACE (reflecting literacy provisions) or initial vocational training (Stream 3000). This can be taken further by computing outcome measures such as module completion rates by postcode to give a picture of achievement across areas differing in socio-economic makeup. Thus the question is not simply whether disadvantaged individuals are represented

> in ACE or TAFE, though we do want to know what extent clients have 'markers' of disadvantage such as low schooling or poor employment, particularly if they are from the 'equity groups' nominated by national policy. What it is important to know is the extent to which TAFE or ACE is directing resources to these clienteles and assisting them to achieve the benefits of participation. As this article and others have argued, this is primarily a matter of effective local strategies, including employment-based strategies developed 'on the ground'.

The postcode participation analysis of Melbourne illustrates the tantalising nature of broad-brush studies. They invite generalisations about the social distribution of VET participation and achievement, but demand further analysis of the educational role of TAFE and ACE in these localities in order to understand how certain equity outcomes can result from the interactions of provider factors, client groups and policy and resourcing constraints.

NOTE

This project is part of the 1999 National Key Centre program of the Research Centre for Vocational Education and Training at the University of Technology Sydney supported by the Australian National Training Authority. The project is part of an ongoing study of VET participation at the local and regional level. Acknowledgment is made of the assistance of the Statistical Division of the Victorian Office of Post-Compulsory Education Training and Employment in making ACE and TAFE statistics available.

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Table 1. Melbourne postcodes, high VET participation rates

Post code		TAFE n	ACE n	VET PR	TAFE PR	ACE PR	Qual %	HHI 16K	ACE: TAFE
3159	Selby	170	187	39.5	18.8	20.7	50.2	10.0	1.10
3047	Broadmeadows	3097	336	24.8	22.3	2.4	28.0	22.7	0.11
3096	Wattle Glen	83	69	23.2	12.7	10.5	47.8	6.8	0.83
3128	Box Hill	2032	448	20.6	16.8	3.7	49.9	21.0	0.22
3114	Park orchards	190	288	20.4	8.1	12.3	51.2	5.9	1.52
3000	Melbourne	655	690	17.9	8.7	9.2	47.6	18.7	1.05
3097	Kangaroo Grnd	66	75	17.9	8.4	9.5	57.1	7.4	1.14
3099	Nutfield	295	209	17.6	10.3	7.3	50.5	10.3	0.71
3158	Upwey	464	273	16.9	10.7	6.3	44.8	13.7	0.59
3160	Belgrave	677	478	16.9	9.9	7.0	47.6	11.8	0.71
3031	Flemington	1104	882	16.8	9.4	7.5	41.3	28.6	0.80
3067	Abbotsford	309	199	16.2	9.9	6.4	49.1	19.2	0.64
3066	Collingwood	506	164	15.9	12.0	3.9	43.7	31.9	0.32
3174	Noble park	3030	895	15.9	12.2	3.6	35.4	20.8	0.30
3003	West Melbourne	159	70	15.8	11.0	4.8	58.0	18.2	0.44
3154	The basin	292	152	15.4	10.1	5.3	44.0	9.4	0.52
3122	Hawthorn	1664	857	15.3	10.1	5.2	57.0	17.6	0.52
3013	Yarraville	833	594	15.2	8.9	6.3	40.3	22.8	0.71
3011	Footscray	1603	660	14.8	10.5	4.3	39.6	27.9	0.41
3065	Fitzroy	701	439	14.6	9.0	5.6	52.0	22.3	0.63
3012	West Footscray	1695	657	14.1	10.2	3.9	35.9	28.1	0.39
3061	Campbellfield	496	83	13.9	11.9	2.0	28.0	18.6	0.17
3175	Dandenong	3968	920	13.5	11.0	2.5	37.2	21.4	0.23
3056	Brunswick	1414	858	13.5	8.4	5.1	43.8	22.1	0.61
3093	Lower plenty	207	114	13.5	8.7	4.8	48.8	8.8	0.55
3032	Maribyrnong	1069	579	13.4	8.7	4.7	44.4	24.2	0.54
3121	Richmond	1645	1062	13.4	8.1	5.3	46.5	21.4	0.65
3182	St Kilda	1225	957	13.3	7.5	5.8	56.6	24.7	0.78
3147	Ashwood	883	329	13.3	9.7	3.6	48.0	21.1	0.37
3016	Williamstown	654	632	13.3	6.8	6.5	50.6	21.2	0.97
3191	Sandringham	311	506	13.3	5.1	8.2	51.5	17.4	1.63
3116	Chirnside park	402	227	13.1	8.4	4.7	39.7	10.7	0.56
3196	Bonbeach	1233	615	13.0	8.7	4.3	39.6	23.7	0.50
3139	Wandin	810	387	13.0	8.8	4.2	38.4	13.9	0.48
3053	Carlton	604	362	13.0	8.1	4.9	45.5	30.2	0.60
3132	Mitcham	869	574	12.9	7.8	5.1	45.0	16.6	0.66
3170	Mulgrave	1858	661	12.9	9.5	3.4	41.8	11.7	0.36
3173	Keysborough	1336	440	12.8	9.6	3.2	32.4	14.7	0.33
3036	Keilor	366	111	12.7	9.8	3.0	43.7	9.0	0.30

Table 2. Melbourne postcodes, high ACE participation rates

Post code		TAFE n	ACE n	VET PR	TAFE PR	ACE PR	Qual %	HHI 16K	ACE: TAFE
3159	Selby	170	187	39.5	18.8	20.7	50.2	10.0	1.10
3114	Park orchards	190	288	20.4	8.1	12.3	51.2	5.9	1.52
3096	Wattle glen	83	69	23.2	12.7	10.5	47.8	6.8	0.83
3097	Kangaroo grd	66	75	17.9	8.4	9.5	57.1	7.4	1.14
3000	Melbourne	655	690	17.9	8.7	9.2	47.6	18.7	1.05
3191	Sandringham	311	506	13.3	5.1	8.2	51.5	17.4	1.63
3031	Flemington	1104	882	16.8	9.4	7.5	41.3	28.6	0.80
3099	Nutfield	295	209	17.6	10.3	7.3	50.5	10.3	0.71
3002	East Melbourne	215	312	11.8	4.8	7.0	60.4	12.1	1.45
3160	Belgrave	677	478	16.9	9.9	7.0	47.6	11.8	0.71
3054	Carlton north	343	494	11.1	4.6	6.6	57.0	16.5	1.44
3016	Williamstown	654	632	13.3	6.8	6.5	50.6	21.2	0.97
3193	Beaumaris	617	814	11.4	4.9	6.5	52.2	13.3	1.32
3186	Brighton	669	796	11.9	5.4	6.5	55.0	12.5	1.19
3067	Abbotsford	309	199	16.2	9.9	6.4	49.1	19.2	0.64
3013	Yarraville	833	594	15.2	8.9	6.3	40.3	22.8	0.71
3158	Upwey	464	273	16.9	10.7	6.3	44.8	13.7	0.59
3068	Fitzroy north	827	824	12.2	6.1	6.1	56.7	19.0	1.00
3039	Moonee ponds	603	564	12.3	6.3	5.9	44.7	21.1	0.94
3182	St Kilda	1225	957	13.3	7.5	5.8	56.6	24.7	0.78
3004	St Kilda road	159	143	12.0	6.3	5.7	53.4	12.8	0.90
3126	Canterbury	329	345	11.1	5.4	5.7	57.7	12.6	1.05
3184	Elwood	846	717	12.4	6.7	5.7	59.4	18.8	0.85
3065	Fitzroy	701	439	14.6	9.0	5.6	52.0	22.3	0.63
3141	South yarra	882	882	11.1	5.6	5.6	56.8	17.1	1.00
3111	Donvale	512	412	12.4	6.9	5.5	48.0	10.3	0.80
3143	Armadale	435	373	11.7	6.3	5.4	56.1	17.0	0.86
3051	Nth Melbourne	489	413	11.7	6.3	5.3	48.6	29.3	0.84
3188	Hampton	425	457	10.2	4.9	5.3	50.5	16.6	1.08
3154	The basin	292	152	15.4	10.1	5.3	44.0	9.4	0.52
3121	Richmond	1645	1062	13.4	8.1	5.3	46.5	21.4	0.65
3113	Warrandyte	420	316	12.2	7.0	5.2	53.9	7.6	0.75
3124	Camberwell	859	630	12.3	7.1	5.2	57.1	13.2	0.73
3122	Hawthorn	1664	857	15.3	10.1	5.2	57.0	17.6	0.52
3132	Mitcham	869	574	12.9	7.8	5.1	45.0	16.6	0.66
3057	Brunswick east	427	293	12.6	7.5	5.1	44.3	22.6	0.69
3056	Brunswick	1414	858	13.5	8.4	5.1	43.8	22.1	0.61
3053	Carlton	604	362	13.0	8.1	4.9	45.5	30.2	0.60
3095	Eltham	1354	986	11.5	6.7	4.8	50.6	7.8	0.73

Table 3. Melbourne postcodes, low VET participation rates

Postcode		TAFE n	ACE n	VET PR	TAFE PR	ACE PR	QUAL	HHI 16K	ACE: TAFE
3006	Southbank	37	43	3.5	1.6	1.9	59.9	9.4	1.16
3027	Laverton north	27	13	3.5	2.4	1.1	77.6	0.0	0.48
3024	Wyndham vale	142	1	3.6	3.6	0.0	34.9	7.9	0.01
3202	Heatherton	55	15	4.4	3.5	1.0	0.0	17.1	0.27
3052	Parkville	219	162	6.5	3.7	2.7	48.9	19.0	0.74
3022	Ardeer	371	73	6.6	5.5	1.1	27.6	20.9	0.20
3045	Tullamarine	17	3	7.0	6.0	1.1	48.1	22.4	0.18
3115	Wonga park	135	76	7.3	4.7	2.6	48.2	7.3	0.56
3059	Greenvale	393	55	7.5	6.5	0.9	39.5	6.4	0.14
3161	Caulfield north	480	383	7.7	4.3	3.4	55.7	16.1	0.80
3076	Epping	945	102	8.0	7.3	0.8	32.3	8.6	0.11
3073	Reservoir	2544	445	8.1	6.9	1.2	32.9	25.0	0.17
3038	Keilor downs	1647	340	8.3	6.9	1.4	37.8	7.5	0.21
3142	Toorak	421	510	8.6	3.9	4.7	57.6	11.3	1.21
3075	Lalor	1332	181	8.7	7.6	1.0	27.9	16.1	0.14
3034	Avondale Hts	719	169	8.8	7.1	1.7	34.1	15.5	0.24
3046	Glenroy	1675	480	8.8	6.8	2.0	34.6	23.4	0.29
3105	Bulleen	560	267	9.0	6.1	2.9	42.1	16.0	0.48
3187	Brighton east	500	472	9.0	4.6	4.4	53.3	15.3	0.94
3042	Keilor park	790	190	9.1	7.3	1.8	36.6	19.0	0.24
3151	Burwood east	613	180	9.1	7.0	2.1	42.6	13.1	0.29
3104	Balwyn north	819	535	9.2	5.6	3.6	52.9	13.5	0.65
3033	Keilor east	851	194	9.3	7.6	1.7	38.5	11.5	0.23
3074	Thomastown	1536	196	9.4	8.3	1.1	28.6	16.0	0.13
3190	Highett	430	228	9.4	6.2	3.3	40.8	22.8	0.53
3041	Essendon north	537	228	9.4	6.6	2.8	45.6	16.5	0.42
3044	Pascoe vale	1169	412	9.4	7.0	2.5	39.4	21.2	0.35
3153	Bayswater	1199	312	9.5	7.5	2.0	39.3	15.1	0.26
3125	Burwood	1096	427	9.5	6.8	2.7	48.8	17.9	0.39
3079	Ivanhoe	649	454	9.5	5.6	3.9	53.5	16.8	0.70
3152	Knox city centre	1780	475	9.5	7.5	2.0	41.5	13.0	0.27
3085	Yallambie	606	290	9.5	6.4	3.1	44.6	14.5	0.48
3081	Heidelberg Nth	705	266	9.5	6.9	2.6	36.7	28.2	0.38
3084	Heidelberg	1021	636	9.5	5.9	3.7	52.2	14.5	0.62
3137	Kilsyth	689	226	9.5	7.2	2.4	38.4	13.8	0.33
3165	Bentleigh east	952	455	9.6	6.5	3.1	44.9	17.7	0.48
3185	Elsternwick	634	457	9.6	5.6	4.0	53.5	20.2	0.72
3183	Balaclava	800	603	9.7	5.5	4.2	54.6	20.9	0.75
3060	Fawkner	674	147	9.7	8.0	1.7	30.1	26.0	0.22

Using Longitudinal Data for Research on VET

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INTRODUCTION

Longitudinal studies can provide insights on young people's transition from education to work that other forms of data cannot. The Longitudinal Surveys of Australian Youth (LSAY) program, which is managed jointly by ACER and the Commonwealth Department of Education, Training and Youth Affairs (DETYA), has now accumulated more than 20 years of data that follow successive cohorts of young Australians as they move through education and training and into the labour market. The data are added to every year. This paper explores the potential of LSAY data for research on VET, and also some of the challenges that VET poses for longitudinal analyses. Illustrations are provided from recent research on the backgrounds of young people participating in VET, and the links between VET and labour market outcomes. The LSAY data are publicly available for use by researchers, and the paper concludes by indicating how the database can be accessed.

FEATURES OF THE LSAY PROGRAM

LSAY has essentially been designed to inform policy aimed at improving young people's transition from school to work. Its origins in the late 1970s arose largely from concerns about the rapid rise in youth unemployment and social exclusion that first became evident in Australia and most other OECD countries in the mid-1970s. The focus on school-to-work transition has led to certain design features in LSAY.

The sample is first contacted when respondents are in Year 9, which is just before the end of compulsory schooling. Since school background and achievement in literacy and numeracy play key roles in shaping post-compulsory education and training opportunities and access to jobs, LSAY starts by collecting extensive information while young people are still in school, and from their teachers and school principals as well.

The focus on school-to-work transition means that the LSAY data collections are annual. Annual surveys are necessary until young people reach their mid-twenties because of the rapidly changing education and labour market circumstances, and high mobility, of teenagers and young adults during the transition process. Annual contact with the sample also reduces sample attrition.

LSAY has a strong concentration on education-to-work linkages so it collects extensive information on educational and occupational aspirations, part-time work while in full-time study, VET in schools, and a wide variety of labour market outcomes (extent and duration of unemployment; occupational status; hours of work; earnings; access to job training; job satisfaction; job mobility and so on).

The LSAY samples are now relatively large (around 13,500 in the original Year 9 sample and about 11,500 when the telephone interviewing commences two years later) because of the interest in educational and labour market outcomes classified by social background factors, State and school sector.

Following initial data collection in school, and a mail survey in the second year, subsequent contact with the sample is via a telephone survey that averages about 20 minutes in length. Using computer-aided telephone interviewing for the subsequent data collections allows more extensive information to be collected than is possible through mail surveys, and at a lower unit cost than would be incurred through face-to-face interviewing.

The program is multi-wave as well as longitudinal. LSAY adds a new cohort at regular intervals, the two most recent being the Year 9 classes of 1995 and 1998. New cohorts are added at reasonable time intervals to allow for monitoring of the effects of contextual changes as well whether the relationships among key variables change over time. Much of the background to LSAY resides in two earlier programs of longitudinal studies: the ACER program called Youth in Transition (YIT); and the Australian Youth Survey (AYS) (and its predecessor the Australian Longitudinal Survey) conducted by the-then DEETYA. The earlier data collections enable the current experiences of young people as they move through education into the labour market to be compared with those experienced by other cohorts of young Australians over the past 20 years.

STRUCTURE OF THE LSAY DATA COLLECTIONS

Over time the LSAY data collections from each cohort build up a comprehensive picture of the social and educational backgrounds of young people, their participation in various forms of education, training and work, and their attitudes to education, work and life more generally. Not all of these data are collected each year, and the data collection changes somewhat in coverage as the cohorts gradually get older, although there is a common core of data items. The longitudinal nature of the LSAY data collections means that new surveys are closely linked to, are comparable with, and build on the previous corresponding surveys.

The common areas covered each year are as follows:

- Education experiences (program, institution, type of enrolment, performance)
- Labour market experiences (employment, type of job, occupation, industry, earnings, job training, job history, job search activity)
- Non-work and education activities
- Health, living arrangements and financial support
- Attitudes and aspirations

Table 1 shows the structure of the LSAY data collections, and how the variables collected change over time as the cohorts age. For example, from year 5 of the data collections onwards much more extensive data are collected on labour market experiences than in earlier years since by that stage almost all of the sample have left school. The data collections also change in response to emerging policy concerns and extensive consultative processes.

Table 1: Structure of the LSAY cohort data collections

Year data collected	Modal age	Young people's activities	Data collection method	Main data collected
1	14	All in Year 9	In-school tests and survey	• Social background • Literacy & numeracy • Attitudes to school • Aspirations
2	15	Almost all in Year 10; small number of early school leavers	• At-home mail survey • In-school mail surveys (school principal & Year 10 teachers)	• Schooling & labour market activities • School structure, programs and environment
3	16	Most in Year 11; some in VET or the labour market	Phone survey	• School activities • Transition from school • Post-school education & training • Employment • Job search • Not in the labour market • Living arrangements, health, general attitudes
4	17	Most in Year 12; some in VET, the labour market, or outside the labour force	Phone survey	• As above, with more detailed questions on Year 12 courses
5	18	Almost all have left school; wide variety of higher education, VET, labour market and non-work activities	Phone survey	• As above, with new questions on post-school study and training, and participation in non-formal learning • Final school certification and results

6	19	Wide variety of higher education, VET, labour market and non-work activities	Phone survey	As above, with new questions on family formation
7 and onwards	20 plus	Increasingly differentiated education, training and employment pathways and outcomes	Phone survey	As above, with new questions to reflect increasing variety of experiences and outcomes

WHAT CAN LONGITUDINAL DATA PROVIDE?

The essence of longitudinal data is that the same people are surveyed on a regular basis over time. In the case of LSAY the surveys start at around age 14 or 15 and, resources permitting, continue until the young people are aged at least in their mid-twenties. In the case of the cohort born in 1961 the surveys continued until they were aged 33 years. By surveying the same young people over time the program enables an understanding of the changes taking place in their lives -- and the ways that previous experiences influence what is happening to them now.

Mapping pathways

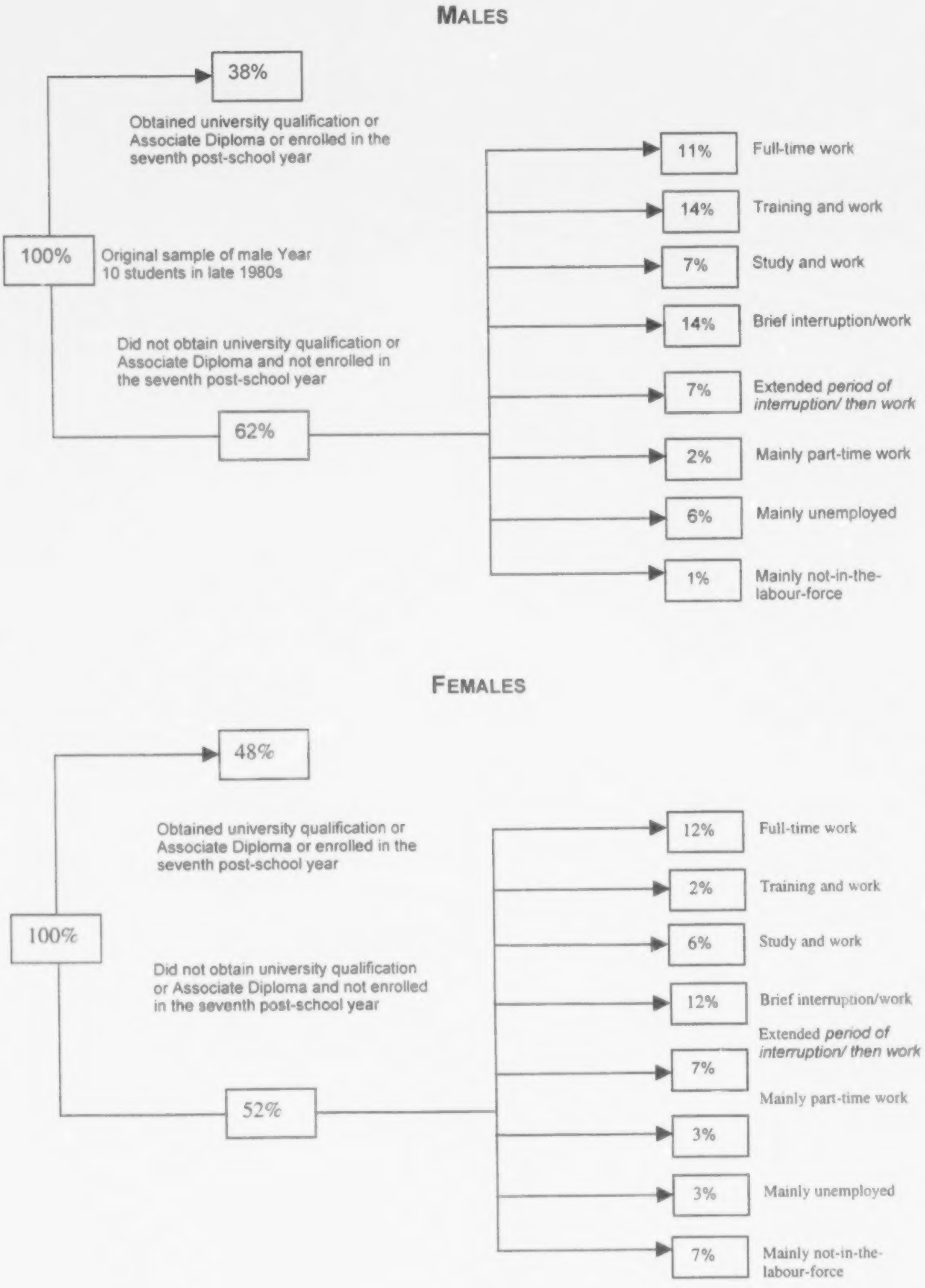
The recent OECD comparative review of education-to-work transition showed that, in comparison with many OECD countries, Australia places an increasing emphasis on individuals constructing their own pathways through education and training and into work (OECD, 1999). As the LSAY database tracks individuals on an annual basis from around the age of 14 years, it is able to identify the range of pathways followed by young Australians, their relative significance in terms of the numbers and types of people involved, and the destinations to which they lead.

Lamb and McKenzie (in press) used LSAY data to analyse the variety of post-school pathways followed by young people from different social and educational backgrounds. They examined the first seven years after leaving school, and identified almost 500 different patterns of activity in the transition from school (in terms of participation each year in various forms of education and training, full-time or part-time employment, unemployment, or being outside the labour force altogether). The diverse patterns of activities evident from these data reinforce the point that young people's post-school pathways in Australia are highly individualised. It is unlikely, for example, that an equivalent analysis in a country such as Germany, where pathways are more institutionally structured, would reveal that around 80 per cent of the sample engage in almost 500 different patterns of activity over the first 7 post-school years, most of them involving fewer than 10 people following the same pattern.

Figure 1 abstracts from the mass of detailed individualised data by grouping patterns of activity that are in fact very similar to each other. It documents the proportions of males and females who had obtained university or TAFE Associate Diploma qualifications by their early twenties and the principal pathways followed by those who did not obtain such qualifications. The data show that female school leavers were more likely to obtain university or advanced TAFE qualifications than young men, but that young women were also more likely to be on post-school pathways involving mainly part-time work or being outside of the labour force altogether. The "training and work" pathway - essentially apprenticeships - was much more significant for male school leavers than for females.

The analyses showed that young people whose principal activity in the first year after leaving school was either an apprenticeship/traineeship, full-time employment, full-time study, or part-time work and study, were much more likely to experience a successful pathway over the first seven post-school years (defined as spending the majority of that time in full-time employment), than were young people whose principal activity in the first post-school year was either part-time work, being unemployed, or outside the labour force. A good early start - in the sense of being in full-time education, training or employment -- seemed to be particularly important for female school leavers. Findings such as these reinforce the need for tracking the experiences of school leavers and early intervention to assist those at risk in the transition process.

Figure 1: Pathways of school leavers over the first seven years after leaving school in the late 1980s, by gender (from Lamb & McKenzie)


MALES
38%
Obtained university qualification or Associate Diploma or enrolled in the seventh post-school year
100%
Original sample of male Year 10 students in late 1980s
Did not obtain university qualification or Associate Diploma and not enrolled in the seventh post-school year
62%
11% Full-time work
14% Training and work
7% Study and work
14% Brief interruption/work
7% Extended period of interruption/ then work
2% Mainly part-time work
6% Mainly unemployed
1% Mainly not-in-the-labour-force
FEMALES
48%
Obtained university qualification or Associate Diploma or enrolled in the seventh post-school year
100%
Did not obtain university qualification or Associate Diploma and not enrolled in the seventh post-school year
52%
12% Full-time work
2% Training and work
6% Study and work
12% Brief interruption/work
7% Extended period of interruption/ then work
3% Mainly part-time work
3% Mainly unemployed
7% Mainly not-in-the-labour-force

Facilitating causal analyses

Unlike cross-sectional or one-off data collections, longitudinal studies are important for policy analysis not only because they document change over time but also because they enable the influence of policies and practice to isolated from confounding influences such as social background and context. Each longitudinal record contains information about the past social and educational background of that individual as well as their current occupational or educational status. Allowance can therefore be made for relevant aspects of background when investigating the impact of policy or practice on outcomes.

> To understand the processes involved in life histories we need to collect data from the same individuals across time and over an extended period of time ... Cross sectional data collected on repeated occasions enables us to monitor the effects of societal change on the prevalence of population characteristics ... [but] longitudinal data is essential to measure changes in individuals within the population as well ... these incorporate the information essential to gain any purchase on causal processes: we need to know about sequences of life experiences and events, and which individuals are affected by environmental changes, while others remain impervious to them. (Bynner 1996, 6)

The capacity to control for the impact of background influences, and to measure growth or change over time, are key features of longitudinal data.

Controlling for Background Influences

When there are a number of factors affecting an outcome it is necessary to isolate the effect of each factor holding constant the effects of all the other factors so that the influence of several influences are not confounded. Because in practice individuals are not randomly assigned to different policies, practices and programs any assessment of the effect of these on outcomes must make statistical allowance for the effect of differences in background. Although cross-sectional studies can and do make use of analyses in which statistical controls for the influence of background are invoked the potential is much greater in longitudinal designs because they gather background data at an earlier time rather than when outcomes are measured.

Figure 2 outlines the model used by Long et al (1999) to examine the impact of different factors on participation in post-school education and training. Their work used YIT data to analyse the way in which the family and personal characteristics of respondents, their educational experiences and attitudes and expectations while at school, and Year 12 completion and immediate post-school educational participation are related. The first block of variables in the model, Family & Personal Characteristics, refer to factors that young people in effect bring to school with them, and which are not amenable to policy intervention, at least not in the short-run. The second block of variables, School Experiences & Post-school Expectations, attempts to map the mechanisms by which any effect of family and personal characteristics on educational participation is transmitted. Such variables are in principle more open to policy influences.

Figure 2: Model of Influences on Educational Participation (Long et al, 1999)

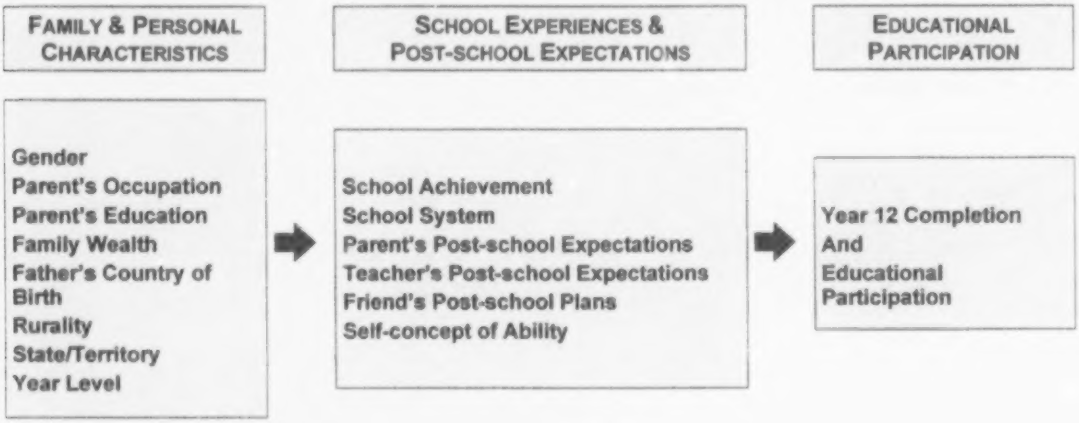

FAMILY & PERSONAL CHARACTERISTICS
SCHOOL EXPERIENCES & POST-SCHOOL EXPECTATIONS
EDUCATIONAL PARTICIPATION
Gender
Parent's Occupation
Parent's Education
Family Wealth
Father's Country of Birth
Rurality
State/Territory
Year Level
School Achievement
School System
Parent's Post-school Expectations
Teacher's Post-school Expectations
Friend's Post-school Plans
Self-concept of Ability
Year 12 Completion
And
Educational
Participation

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Table 2 applies this general model to the study of participation in apprenticeships at age 19 by the cohort born in 1975. Column 1 (the observed participation rate) shows that young people from homes in which the parent's occupation is classified as *Skilled* are more likely to participate in apprenticeships than other young people. Given that *Skilled* occupations are often those that require an apprenticeship for entrance, and that apprenticeships are a predominantly male activity, these results suggest that sons may be following in their father's footsteps. Young people from semi-skilled and, to a lesser extent, clerical families have participation rates towards the upper end of the range. Apprenticeship participation rates for the *Professional* category are relatively low in each cohort.

Table 2. Participation in an apprenticeship by age 19 for the cohort born in 1975, by parental occupation

Parental occupation	Observed participation rate (%)	Rate adjusted for family & personal characteristics (%)	Rate adjusted for column 2 plus school experiences & post-school expectations (%)
Professional	8	8	10
Managerial	14	14	14
Clerical	11	11	11
Skilled	19	19	17
Semiskilled	16	16	14
Unskilled	17	17	15

Source: Long et al (1999).

Statistical adjustment based on multivariate techniques to try to isolate the relative contributions of other factors to the observed differences appear to have little effect on the differences between social groups (see columns 2 and 3). As expected, the statistical adjustments narrow the differences in apprenticeship participation among young people from different social groups which suggests that it is not just parental background which accounts for the differences (eg young people who live in rural areas tend to have a higher participation rate in apprenticeships). However, the fact that the adjusted percentages differ in only small ways from the observed percentages suggest that parental occupation plays a uniquely powerful role in participation in apprenticeships.

Identifying Value Added

Another illustration of the analytical perspective facilitated by longitudinal studies is that data on early school achievement allow identification of the separate influence of post-school educational attainment on labour market outcomes such as earnings. Not all of the observed higher earnings of university graduates, for example, can be attributed to their degree. Those who enter higher education typically have relatively high levels of early school achievement, are more likely to have completed Year 12, and to have come from more privileged home backgrounds - all of which are associated with lower unemployment rates and higher earnings. The application of analytical models similar to those in Figure 2 by Marks and Fleming (1998) found that after controlling for such factors the earnings advantage of a university qualification does decline, but that it is still positive, adding around 8 per cent to earnings on average, other factors equal. However, the same analyses found that while having an apprenticeship qualification is certainly associated with higher earnings, especially in the early years of employment, the qualification itself appears to add relatively little on its own to earnings once young people reach their late twenties.

THE CHALLENGES OF VET FOR LONGITUDINAL ANALYSES

Longitudinal data are not easy to analyse. The data sets are typically large, involving a number of years of data collections with varying response rates, requiring a considerable investment of time in data checking and variable construction, and necessitating complex weighting procedures to allow for the problems of sample attrition. Although the attrition rate of the LSAY samples is relatively low, averaging less than 10 per cent per year, it is generally the case that those most likely to drop out of the sample are those who are less successful in educational and employment terms. Weighting can overcome many of the problems due to attrition - since a great deal is known about those who are no longer in the sample - it is an issue that requires on-going attention.

To these general challenges of conducting longitudinal studies can be added some particular features of the Australian VET system and indeed post-school education and training more generally. As is well known VET provision is becoming increasingly flexible, modularised, provided in a greater variety of settings, and leading to a great diversity of qualifications - or in many cases no completed qualifications although other measures (such as module completions) indicate successful outcomes. Accordingly it is necessary in an annual survey such as LSAY to ask not just about educational participation at the time of the survey (which is typically in the October to December period), but also to seek recall data since the time of the last survey. It is also necessary to seek data about educational participation in a variety of ways (eg name of course, name of institution, main area of study, type of enrolment) to check the consistency of the responses both internally and against other data sources. The fluidity of participation in post-school education and training also means that many analyses are best conducted in terms of ever enrolled in (say) TAFE by age 22 rather than enrolled in TAFE at age 22.

ACCESSING LSAY DATA AND RESULTS

LSAY data are deposited with the Social Science Data Archives (SSDA) at the Australian National University in Canberra in the year after collection. Data from the earlier ACER and DETYA longitudinal surveys are also available through the SSDA. The data are deposited in a form that does not permit the identification of individual sample members or participating schools. The data can be purchased from SSDA in SSPS format for a nominal charge.

ACER maintains an extensive LSAY analytical program organised around three main themes:

- participation in different forms of education and training;
- school and educational effects; and
- transitions from education and training to the labour market and adult life.

The LSAY program has also produced an extensive range of Technical Papers, conference papers, articles, briefings for education and training authorities, and special data analyses on request. Details of the program and its output are available on the ACER Website: www.acer.edu.au

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The value of work-based learning: A study of the practice firm

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INTRODUCTION

The Australian employment profile has changed dramatically over the last ten years, responding to the pressures of globalising the world economy. The way we work and play changed considerably in the last decade of the twentieth century: a result of the new technologies but also new political and economic forces. All this has meant changed and considerable demands on the labour force.

The changing modes and patterns of work impact on the way training is undertaken. Both in the formal training environments of school, TAFE, university and private providers, and in the workplace, training is taking on new partnerships - between training provider and student, between training provider and industry, and between training providers themselves. In many cases, training is flexible, more inclusive of work practices and more streamlined. Links between training providers and the business sector are established to share responsibilities and costs, rather than the traditionally disparate roles previously seen in the Australian education and business sectors.

An indicator of this change is seen in the creation and implementation of the National Training Framework, with its emphasis on training packages, recognition and endorsed industry competencies. 'Just in time' and 'just for you' opportunities are now available for clients and lifelong learners. Training is client-focussed and flexible, and able to accommodate industry needs while maintaining the transference of generic skills and qualifications. Further, the concept of work-based learning is now well entrenched in the training vocabulary.

This paper will examine the current debate in VET about training, about training for a global workplace and in particular, the role of work-based learning. It will relate the key features of work-based learning research to the practice firm initiative, and discuss a piece of research undertaken by the CIT Research and Evaluation Department which examines the effectiveness of the relationship between employers and the practice firms they partner.

Practice firms have appeared in Australia over the last five years. There are now about 80 in the Australian Network of Practice Firms. Practice firms are an example of a simulated workplace in which students are prepared for working in a global economy. The questions that drove the development of this paper are:

How do practice firms fit with the concept of work-based learning? How do they demonstrate the value of work-based learning? How does industry relate to practice firms?

THE EDUCATION DEBATE

The general training scene

ANTA set the scene for the current debate with the publication in 1997 of A Bridge to the Future: Australia's National Strategy for VET 1998-2003. This Strategy represents an agreement between the State, Territory and Commonwealth Governments and industry, and focuses on the following issues:

- equipping Australians for the world of work
- enhancing mobility in the labour market
- achieving equitable outcomes in VET
- increasing investment in training
- maximising the value of public VET expenditure

Hager (1997) writes that:

> learning in the workplace is vital to the implementation of Australia's national training program, whose overarching concern is to improve the nation's skill formation process.

He also went on to note that other factors affecting training, included:

- the resources required by RTOs seeking to satisfy industry training requirements
- the high cost of off-job training for small-to-medium sized businesses, and
- the lack of access of many trainees to off-job training, particularly those in remote areas.

The changing workforce

Spierings research into work practices and employment status, the Dusseldorp Skills Forum, (1999) has identified that many young people (aged 20-24) are missing out on the benefits of full-time employment and the benefits of the earnings that this provides. These age groups are primarily employed as casual or part-time employees and their earnings reflect the nature of this trend.

Moreover, this age group also bears the brunt of the unemployment in Australia. Spierings quotes Gregory (1999), who estimates that compared to mature aged workers, the earnings of this group have fallen by 20% since 1976. He suggests that this decline in income, combined with the fact many young people spend longer years in training, has resulted in an effective redistribution of wealth from the young to the middle-aged.

With access to new technologies, changes in the mode and format of training are also occurring. As the training pendulum swings more in the direction of industry and its increasing responsibility for training, work-based learning is taking a greater priority than previously. The increasing role of the workplace trainer often leads to a partnership between public and private training providers and workplaces.

Workplace learning

As a result it is not surprising to the see an array of training practices, particularly those that are workplace-oriented. For example, employees may undertake a training program in their workplace in collaboration with a provider of their choice; they may be in a program where all the learning and assessment is carried out on the job with a registered workplace trainer and assessor; they may learn and be assessed in a simulated workplace such as a practice firm; or they may find themselves in a learning partnership such as Dynamic Learning - Sydney Institute of Technology, which has been set-up to provide learning support in the clerical and administration competencies for employees in a number of organisations.

Work-based learning

Workplace-based learning has been defined by Billett (1993) as:

> the acquisition of knowledge and skills. Individuals participate in authentic vocational tasks, supported and guided directly or indirectly by more experienced workers. These workers demonstrate, coach, support the learner in the workplace and thereby gradually encourage autonomy.

The workplace has also been found to play an essential role in defining the core competencies. Stevenson's 1996 research, quoted by Gibb, in the tourism and hospitality sector noted that:

> workplace learning is more defined, collaborative and innovative than classroom training, yet it is less supportive and provides less independence to the learners than the classroom

Hager (1994) found that formal vocational education and training that met the workplace competency standards usually requires the learning experience to be undertaken in fully operational conditions if work-ready graduates are to be produced; they might not however, be workplace competent. This has contributed to initiatives that integrate off-the-job training with relevant workplace experience.

Misko, (1996) in her study found that most small companies have been found to have no formal structures for work-based training. This contrasts significantly with the formal structures found in half of the medium-sized and three quarters of large enterprises. Work-based training was not found to be widespread in Australian enterprises in 1996.

Figgis (1998) in her study of the structured work placements for VET students in senior secondary schools, found that the first thing that employers worry about when considering taking on a student in a structured work placement was whether they would detract from normal productivity. This attitude in itself would constitute a valid reason for the use of simulated training situations.

However, students in workplaces can increase productivity, even at entry-level. Other findings in Figgis' work highlighted the employers' perception of the value of new ideas, the trialing of new ideas, the fact that students can do useful things, that businesses are able to decline requests from other schools (so fewer schools to deal with), that staff are able to reflect on their own skill base, and that recruitment practices can be minimized if companies recruit students they had on work placements (saves time in training as many are familiar with the organisation and with industry specific skills).

However, demands on the participating businesses included time, effort and at times money. This had to be considered against the benefits to the enterprises and communities, which could include: school-industry relationships, exposure to new work practices and personal satisfaction.

Curtain's (1995, p41) research found that small-to-medium sized businesses recruit staff with the 'right skills' on a needs basis. He advocated:

> ...that there was scope for a more dynamic approach to workplace learning, based on the following propositions:
>
> - Learners learn best by doing - by actively working on substantial problems in meaningful contexts
> - Learning is a quintessential social activity
> - The context of the learning is a key determinant of what is learned and how well that learning transfers to new situations.
>
> Human beings are by nature sense-making creatures with a remarkable ability to learn'.

I would now like to examine the practice firm training scheme as a workbased learning methodology and see how it fits with the current debate.

THE PRACTICE FIRM (OR PRACTICE ENTERPRISE OR VIRTUAL ENTERPRISE)

Practice firms are known by different names in different parts of the world. However, they tend to fit into the same general framework which the Canadian Practice Firms Network promote:

> A practice firm is a realistic simulation of a business with all of its administrative functions. The commercial transactions, which are carried out with the other 3000 similar practice firms around the world, allow these firms to perfectly recreate all of the facets of local and international business. As a matter of fact, everything resembles reality except the actual production and exchange of money, which remain fictitious.
>
> Source: internet (http://www.rcee-cpfn.ca/english/concepta.html).

Practice firms are not a new phenomenon. They have been traced back to the seventeenth century to a Mr. Lerice of Danzig, Germany who described the transactions of an invented businessman (Peter Winst). In 1776 Karl F Barth outlined the program with the following words: "the teacher lets them choose a sort of activity and a trading location....; each one receives fictitious capital, goods or securities...". These examples are the forerunners of the current practice firms that are now spread across the world.

Obviously there are a great many attractions to this type of training. The table below outlines the 3003 practice firms registered with EUROPEN, a non-profit organisation whose headquarters are located in Essen, Germany and who register countries with practice firms that conform to their mandate. At September last year the following countries were registered:

Table 1: Practice Firms around the world

Country	Practice Firms
Australia	47
Austria	650
Belgium	27
Brazil	54
Bulgaria	12
Canada	32
China	5
Czech. Rep	312
Denmark	61
Finland	34
France	127
Germany	786
Great Britain	28
Greece	45
Hungary	150
Ireland	4
Italy	132
Lithuania	44
Morocco	1
Netherlands	101
Norway	14
Poland	29
Portugal	4
Senegal	1
Spain	41
Sweden	53
Switzerland	42
Slovak Republic	75
Slovenia	15
Russia	22
Ukraine	14
USA	40
Vietnam	1
Total	**3003**

There are other practice firms in Argentina, South Africa and Asia that are preparing to join EUROPEN, but are not currently registered in their own right. This figure is therefore underrepresentative of the growing numbers of practice firms.

Practice firm participants in these countries can be unemployed people being retrained, school graduates seeking their first job, students in business colleges, school students, disabled people being trained in particular skills, and people employed in large businesses, who may be undergoing a general induction program or being inducted into a new job in the company.

What is particularly notable is that retraining courses for the unemployed have a high placement success rate in many European countries, often about 80-90%. Similar figures have been quoted for practice firm graduates leaving schools or colleges to seek jobs. The skills they acquire in a practice firm appear to be those that are needed by employers!

THE AUSTRALIAN NETWORK OF PRACTICE FIRMS AND ITS ROLE

The Australian Network of Practice Firms (ANPF) is a member of the international practice firm network, currently linked with its trading partners through EUROPEN in Germany. Together these networks provide a simulated international economy in which students develop and extend their business skills by "trading" in a global marketplace.

ANPF originated in 1995 with the support of Federal and State Governments through initiatives geared to the introduction and use of industry competencies and training packages in vocational training programs. In 1999 over 60 practice firms subscribed to ANPF; they are found in all States and Territories, and are hosted by schools, TAFEs, universities and private providers.

Students enrolled in vocational training programs from Certificate I to Advanced Diploma levels in business, information technology, retail, marketing, travel and tourism, administration and real estate may find themselves in an Australian practice firm. The practice firm can be used to integrate the practical and theoretical components of a learning program, to prepare students for an industry placement, to provide practical experiences, or to provide an assessment centre so students can demonstrate their ability to complete the requirements of particular competencies or suites of competencies.

Practice firm training is also used in high schools and colleges to assist Years 9 and 10 students in choosing study paths. It can provide a (hands-on) workplace dimension to an existing Higher

School Certificate program (eg Business Principles or Studies) or a supporting context for studies in languages, cultural relations, legal or information management programs.

How it works

Practice firms operate under four basic principles:

- A practice firm must trade with other practice firms (to ensure the stimulus from external clients and the volatility of the marketplace is available for learning purposes);
- A practice firm must have at least one real business partner to provide current business information and assist students in following best business practices such as preparing a business plan, dealing with the ANPF Bank for a loan, and beginning GST processes;
- Students must be responsible for the planning and activities of the practice firm; (students take ownership and develop a commitment to the firm); and
- Students must follow an action-learning process (plan - act - reflect - understand).

These four principles result in a collaboration between students, business partners and teachers. With students taking responsibility for the activities and outcomes of the practice firm, teachers take on a different role - that of facilitation. They mentor, coach, advise and support rather than direct.

The near-real business activities carried out in the practice firm thus provide an opportunity to develop and demonstrate competence and a breadth of understanding at a higher level than is possible in many classrooms, to a level of reality and practical application in a workplace context. Close links with the business partner ensure that their skills will be immediately transferable to the business partner's business, and that these skills can be adapted to suit the working arrangements of other businesses.

EFFECTIVENESS OF THE PRACTICE FIRM RELATIONSHIP - THE STUDY

As part of the development of a marketing strategy for ANPF, the Research and Evaluation Department of CIT was asked to undertake a telephone survey of the effectiveness of the relationship between practice firm personnel and their business partners.

Thirty nine business people were interviewed and asked a series of questions relating to their business, its relationship with the practice firm it mentors, the value of practice firm training, and their opinion of ANPF.

The primary purpose of the survey was to identify the benefits that accrue to business partners from their involvement in a practice firm. While it was recognised that each practice firm has a unique relationship with its business partner/s, it was important for ANPF planning purposes to understand the nature of that relationship and to assess the level of commitment of the business partners.

Methodology

Initially, 44 practice firms were selected as the target population. These were considered to be stable in operation and established for a minimum of six months. The Network Manager wrote to each, seeking their participation in a telephone survey and a suitable date and time. Of the total population of potential subjects, some 39 made themselves available for interview, noting that in some cases that a practice firm was partnered by more than one business or by more than one person in the same business.

A series of questions were devised in consultation with Research and Evaluation. These questions and a confirmation of the agreed time of interview were sent to the selected sample so they could be adequately prepared for interview. The interviewers were also prepared with a short background on each firm ie, location, products, length of membership, and any significant details (eg multiple business partners, whether their company works with a practice firm in another state, etc).

Structured telephone interviews were carried out by personnel in Research and Evaluation between 12 July 1999 and 29 July 1999. Thirty nine business partners were interviewed over this period, with interview times ranging between twenty minutes and an hour. Responses were collated and faxed to the interviewees for verification. The resulting data was analysed by Research and Evaluation.

Limitations of the Study

The available population of practice firms totalled forty four; of these, 88.6% (39) agreed to take part in the survey. This included representation from each of two businesses mentoring two practice firms, and the different perspectives of two people from one business. Of the available population, five persons (11.3%) were not interviewed for a variety of reasons: too busy (2) ; away or on leave (2); or uncontactable (1).

The study included five ex-business partners - two people had changed their employment but were interviewed because of the length of time they had spent as partners, one who refused to continue when asked for financial sponsorship, and two who had agreed to work as a partner for one year only.

There is no evidence to indicate that the group included in this study is not representative of the total population of business partners.

THE STUDY

Overall, the study concluded that students who have had experience in practice firms would be better qualified, experienced and business oriented people. The business partners considered that ANPF has the potential to develop a real training partnership between the students and industry as a whole.

The partners applauded the concept and thought there should be more practice firms. However, they highlighted the need for more guidelines outlining the requirements of business partners and what they might expect in return. A number commented on the lack of feedback from the practice firms and a general lack of communication.

To illustrate some of the key findings of the survey, I want to provide some of the business partner's comments, look at a typical business partner profile and then explore some of the more interesting findings of this research. I will then relate this back to the literature search and the questions I asked at the beginning.

The business partners' comments about the value of the scheme:

When asked how they saw the value of practice firms, comments included:

> Mega. What you get taught in the classrooms is nothing like the workplace. Practice firms are as close as you can actually get to the real environment. Work experience is fake, the practice firm isn't. Students are able to learn from mistakes, without creating world shattering implications and they are able to learn problem solving skills
>
> Reality - taking them out of the academic world and exposing them to real life. It has given them examples of reality
>
> Excellent value for students to get real experience in an office environment - great ground work
>
> Practice firms prepare students for the workforce. Rather than doing courses that are theoretical....
>
> The students grew in confidence in certain ways. For example, they learnt to speak in public and learnt about business.

Profile of the average business partner

One way of providing an overview of the results of the survey is to look at what was revealed about the average business partner, what they liked about the scheme and what they didn't like:

- Their business is often categorised as small
- It is predominantly in tourism/hospitality, retail and services/support areas

- They had mostly been involved for over one year and less than two
- They were initially approached by a staff member of the institute/school to act as a partner
- Most had some previous contact with training organisations, generally through work experience programs or with trainees
- Most did not really understand what was expected of them as business partners, and would like more guidance and feedback
- They had a good relationship but believed this could be improved
- They usually have one member of staff involved with the practice firm (however 30% have more than 2 involved)
- They usually provided their time, expertise, documentation and occasionally promotional products, work experience or networks
- They were generally positively impressed with both students and teachers who were seen to be enthusiastic and motivated
- They believed that students and teachers could be better prepared for working with the business partners and staff
- They received some publicity, enjoyed being involved, felt that students' experience would enhance their prospects for employment, but saw limited benefits for the development of their own staff
- They believed that the greatest value of practice firm training was to give the students insights into business strategies and an awareness of the complexities of business
- They liked the opportunity to give back to the community through supporting students in practice firm work, but also the opportunities for employment and imparting of business knowledge and concepts and
- They generally applauded the concept and the attitude of staff.

BENEFITS TO THE BUSINESS PARTNER

In looking at the relationship from the business partner's perspective, there appears to be several key features that are, or could be, very attractive selling points for the scheme. The businesses interviewed felt that:

1. students who have had experience with practice firms would be better qualified, experienced and business oriented people

2. students from practice firms that had been partnered were employable

3. employment of practice firm graduates reduces induction time, not only about the organisation's ethos and its products or services, but also in the more detailed processes used at the operational levels

   These three points highlight the recruitment potential of practice firm graduates: business people see them as business oriented and experienced! It was interesting to note that some of the business partners, despite the small size of most of their businesses (less than 99 staff), had employed graduates, but there has not been any rigorous study of employment rates among practice firm graduates in Australia to date.

4. it also allows businesses to reflect on their practices and procedures as the practice firm mirrors their business - often allowing them the opportunity to change

5. businesses also gain new insight into their businesses due to ideas from students; some of the practice firms had taken on ideas and procedures that students had identified

   These are both interesting features of a simulation that mirrors a real business operation and its processes and allows an opportunity for both the business and the students to study the practices used in the workplace and, depending on the business partner's own attitude, to make changes to the business itself! The business was learning as well as the students!

6. This experience has the potential to develop a real training partnership between the students and industry as a whole

   This comment is interesting in relation to the types of arrangements that are often made in work-based learning strategies. It would seem that the practice firm working arrangement appeals to businesses. It is more controllable, it can be adapted to suit the needs of both partners and can go as far, or as short as both agree.

When asked what resources they provided, it was evident that the major resource given to practice firms was time. Perhaps this is the key to the venture: the cost of the business partner's expertise and understanding about business and their willingness to contribute that knowledge to the next generation of business people. It is also important to see that the relationship has time to develop; business partners continue with their practice firm as long as they wish; it is expected that this will be a continuing relationship so that trust and understanding can be built on both sides.

Businesses also provided other resources such as business knowledge and information, documentation specific to their business such as price lists, policies and procedures, products, display material, stationery and advertising materials. Some also provided access to their stores and sites for students to gain information and assistance. Others had provided opportunities for work experience or networks. One person allocated money for expenses.

BENEFITS FROM AN EDUCATION AND TRAINING PERSPECTIVE

Predominantly, the business partners saw the greatest value as giving the students insights into business strategies and raising an awareness of the complexities of business. They also saw value in providing the students with problem solving skills, increasing employment opportunities, giving them experience in real situations, and the opportunity to transfer theory based knowledge into practical skills.

The major points from their statements appear to be that:

1. the practice firm provides students with the opportunity to participate in a workplace, to learn about business processes, to gain confidence and an understanding of the commercial world; this experience helps them to learn to work in business situations managing day-to-day stresses before they experience the stresses of reality;

2. the experience enables students to develop inter-personal relationships, teamwork and problem-solving skills in a business environment at both a national and an international level; they learn in a "safe" situation which allows them to experiment freely and examine the outcomes of their experiments;

3. it provides opportunities for students to develop an understanding of business and commerce at a range of levels, from entry - level to administrative, technical and managerial levels. By working in different parts of the firm, students gain a holistic impression of business.

CONCLUSION

Practice firms thus appear to offer opportunities for young people to gain the experiences highly prized in the employment market. To be able to present a portfolio of their work with references from their business partner/s and to articulate clearly their skills and aptitude would place practice firm graduates in an excellent position for work, whether full or part-time.

Practice firms highlight opportunities for the education and training sector to work closely with business in arrangements that can be developed and nurtured at the local level. They bring young (and not-so-young) people in touch with potential employers, thus providing opportunities for learning how to present oneself to business and how to interact with business people.

Practice firms can be seen to incorporate the defined, collaborative and innovative aspects of workplace learning that Stevenson referred to (see page 4), but the structure of practice firm training with its specified roles for students, business partner and teacher provides the support and independence that was proposed. Students are thus learning more effectively by doing, and are better equipped for both the technical and interpersonal aspects of work. This form of work-based learning provides them with a greater diversity of skills in order to meet the changing demands of the workplace.

The training partnerships that the business partners referred to fits well with ANTA's aim to equip Australians for the world of work and to maximise the value of public VET expenditure. This partnership also fits with another statement of State, Territory and Commonwealth Ministers of Education: that of the Adelaide Declaration on National Goals for Schooling in the Twenty-First Century. This statement raises the expectation that schooling should

> 'develop employment related skills and an understanding of the work environment, career options and pathways as a foundation for, and positive attitudes towards, vocational education and training, further education, employment and life-long learning'.

Our survey shows that, from a business perspective, practice firms should save the business partner a considerable amount of time and training when they employ graduates from a practice firm. One person who participated in the survey representing the business was in fact, a graduate of the practice firm that they sponsored. She directly attributed her employment to her position in the practice firm. A number of partners stated that practice firms should take the place of general work experience.

Many of the business partners indicated that they enjoyed being involved with a practice firm and found it to be both interesting and rewarding. They thought of their involvement as a responsibility and a way they could put something back into the community.

Practice firm methodologies fit with Curtain's request for a more dynamic approach to workplace learning. Practice firms incorporate an action-learning focus, the social activities and the business context that he proposed.

Our study therefore confirms the potential of practice firm training and methodologies for skilling people to work in a changing and globally-focussed world, to link RTOs and businesses in new training arrangements and to assist in reducing the step from the training environment into the workplace. Our survey highlighted the need for better processes to be put in place to enhance the relationship between RTO and business partner, for more realistic business processes to be incorporated into ANPF requirements, and for more training of teachers and students to work effectively with their business partners.

The very positive response of the 39 business people to the practice firm training scheme confirms the interest of business in supporting training and, in particular, in supporting this type of training. It is the challenge of the ANPF to develop this relationship further.

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The effectiveness of workplace training and assessment practices in on-the-job traineeships

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INTRODUCTION

On-the-job traineeships involve a contract between the employer and trainee where the employer agrees to provide a job together with structured training so that the trainee can acquire specific skills. In these traineeships trainees acquire their skills on the job. This means that typically they do not have to leave the work-site to attend college. In these on-the-job traineeships workplace supervisors deliver the training according to a negotiated training program, and trainers (mentors) or assessors from registered training organisations (RTOs) either assess the acquisition of competencies or validate the workplace supervisors' assessment of the trainees' level of competence. In some cases, usually where employers do not have the facilities or skills to provide certain components of the course on site, they may make arrangements for RTOs to deliver this part of the training.

A number of reviews on the implementation and operation of these on-the-job traineeships have been conducted in different states (Schofield 1998, 2000, Administration Training Company 1999) These reviews have raised concerns about the quality of these arrangements . In particular they have uncovered instances where there have been misunderstandings about the roles and responsibilities of the various players, supervisors have been insufficiently skilled or committed to deliver training and assessment, and the range of work experiences available at the workplace have not been sufficiently broad.

This paper reports on the findings from a study of on-the-job traineeships. It provides a brief depiction of the way that training is delivered and assessed and comments on the effectiveness or otherwise of the training and assessment practices used.

THE CONTEXT

Over the past few years there has been a dramatic increase in the number of traineeships in South Australia. Of these there is an increasing number being delivered as on-the-job traineeships. With the introduction of training packages (documents containing descriptions of endorsed competency-standards and assessment guidelines, and associated learning resources for particular industries or enterprises) a further increase in the number of 'new apprenticeship' providing all training on-the-job is expected.

When the Accreditation and Registration Council (ARC) approved arrangements for on-the-job traineeships in South Australia, quality assurance processes were established to ensure that the qualifications that trainees received on completion of training actually reflected their competencies.

These quality assurance processes included:

- the establishment of a contract of training between employer and trainee
- the involvement of an RTO in every contract of training. The RTO is required to develop a training plan in conjunction with the employer and the trainee and is required to oversee the training in a mentor/assessor role.
- the provision that the RTO is the sole body able to issue the qualification upon successful completion of the traineeship
- the requirement that the RTO is subject to audit at least once during their period of registration.

Registration processes for RTOs in South Australia are rigorous. They require prospective RTOs to self assess against the criteria for registration. This self-assessment is in effect considered to be an application for registration. The criteria for registration include leadership, planning, information and financial management, people, client focus, organisational performance, quality of product and service. They are judged on their ability to meet these criteria. Evidence on compliance with these seven criteria are gained through:

- interviews with key personnel nominated by the RTO
- advice from industry advisory bodies (ITABS) in particular regarding the organisations link with industry associations
- assessment of paper-based and electronic records (information provided to students, staff policies, procedures, student records)
- interviews with students and staff to verify information provided by the RTO
- contact with employers to verify level of competence achieved by graduates
- an assessment of the RTOs equipment and facilities to ensure they meet the requirements as outlined in the relevant training package/curriculum

ABOUT THE STUDY

In this study trainees, employers and RTOs were surveyed either by questionnaire or by in-person or telephone contacts to provide information on the adequacy or otherwise of the training and assessment practices used in these traineeships.

A total of 1220 trainees in small business and office administration programs who started their programs during 1998 were surveyed. This represented almost all the trainees who started on-the-job traineeships at that time. Of these 338 returned a completed questionnaire, 11 telephoned to describe why their traineeships had not commenced or why they were having problems, and 77 questionnaires were returned because of postal difficulties. This represented a response rate of about 30%.

A random sample of 656 employers of trainees within the trainee sample was drawn to provide 164 prospective participants. Of these 126 respondents agreed to or were available to provide responses to in-person or telephone interviews. This represented a response rate of 77%.

All registered training organisations providing mentoring support services to these programs were asked to respond to a questionnaire survey. Responses were received from about 60% of all RTOs involved in providing mentoring services to these trainees. However responses were received from about 30% of individual mentors provided with a questionnaire. RTO mentors reported on all worksites (some 800 in all) and trainees in office administration and small business that they were providing assistance to at the time of the study.

PROFILE OF RESPONDENTS

Trainees

The average age of small business trainees was 28.3 years with ages ranging from 17 to 54 years. The average age of office administration trainees was 29.6 years with ages ranging from 15 to 54 years. Over half of the trainees (51.1% small business, 59.5% office administration) were employed with the same employer before starting their traineeship, with over half of these existing workers having been so employed for more than 12 months and just over a quarter for less than three months.

At the time of the survey office administration trainees had completed an average of 9.7 months of their programs with the majority having completed nine months or more. Small business trainees had completed about an average of 9.8 months of their programs with the majority having also completed nine months or more.

Employers

Employer respondents came from small and large businesses. However, about a third were from companies employing less than five and between five and 19 workers. About ten percent were from companies employing over 100 workers. Employers also came from a variety of industry sectors. The largest group (about a third) were from the wholesale, retail and personal services sector . The community services and health sector and the manufacturing engineering and related services sector each accounted for about a tenth of all respondents.

MAJOR FINDINGS

Selecting on-the-job training arrangements

Employers were asked to identify the critical factors which influenced their choice of on-the-job traineeship arrangements. In order of frequency these critical factors were:

- the trainee did not have to leave the worksite (61.1%)
- the traineeship promised a potentially better training outcome (57.1%)
- the training was able to be conducted at the place of business e (52.4%)
- the employer was attracted by the employer incentive (36.5%) for taking on a trainee

However about 10% also indicated that they were not aware of other types of training arrangements.

When employers were asked to report advantages of these programs, the most frequently reported advantage, identified by almost three-quarters of the total group) related to the opportunity for the employer to control the timing and nature of the training. On-the-job traineeships allowed employers to suit the training to their business needs.

Conducting the training

Practical skills training

Trainees, employers and RTO mentors were asked to indicate the principal methods for training trainees in the practical skills for their jobs. For all three groups the most commonly identified principal method was for the supervisor to show trainees what to do. However respondents also reported a combination of major methods. In these methods the supervisor and other workers were frequently identified as providing this form of training.

RTO respondents were asked to indicate the practical skills training used in the workplaces for which they had mentorship responsibilities in terms of the numbers of workplaces employing these methods. Themost frequently identified method, identified for almost two-thirds of the office administration workplaces was for the supervisor to show trainees what to do. Small business mentors reported that this was also the case in well over half of their workplaces. The next most common method was for workmates to show trainees what to do and for trainees to observe how others were performing the tasks.

Theoretical skills training

The supervisor or manager explaining concepts to the trainee was the principal method used for knowledge or theory training. This was reported by trainees, employers and RTO mentors. However about one in five trainees reported working through their manuals individually as a principal method. A small group (2.9%) of trainees reported that they had as yet to receive any training or any learning materials. When trainees were asked to indicate the times during which they worked through their learning manuals over three-quarters reported that they did this either when they had a spare minute in work, or in their own time at home. Just over one in ten reported that they did it during a set time at work.

Over a quarter of employer respondents reported a combination of methods. These included the supervisor and other work colleagues providing the training, the supervisor and trainee working together through the manuals, trainees attending RTO premises or a combination of other methods.

When RTOs reported on the training practices used in workplaces they visited, they reported that the supervisor explained knowledge components to trainees in about two-thirds of the office administration workplaces and just over half (50.4%) of the small business workplaces. The next most common principal method identified for the office administration workplaces was for trainees to discuss knowledge components with other workers (11.7%) and trainees individually completing exercises provided in learning materials (10.5%).

Monitoring the placements

Trainees, employers and RTO mentors were asked to report the number of visits that had been made to workplaces. About two thirds (66.6%) of trainees in office administration and over half (52.4%) of those in small business who reported RTO visits were likely to have received three or more visits from their RTO mentors.

Office administration trainees RTOs reported having made between three and eight visits with the majority reporting five visits. Small business mentors reported having made between two and six visits with the majority reporting five visits.

Employers were also asked to specify the number of RTO visits made to their workplaces, and whether they felt this number to be sufficient. The number of visits reported ranged from zero to 15 visits, with 70% of employers reporting between three and six visits. The great majority of employers reporting three visits or over felt these to be sufficient. In contrast, those who received between one and two visits believed that these were insufficient.

Major assessors of practical and theoretical skills

The major assessor of the trainee's practical skills as identified by trainees and employers was the trainee's supervisor or boss. This was true for almost three-quarters (71.8%) of small business trainees, and about a half (47.7%) of office administration trainees. The other major assessor of trainees as identified by trainees and employers was an assessor from the RTO. However this was far more the case for office administration trainees (43.3%), than for small business trainees (14.1%).

RTO mentors reported that the trainee's supervisor or boss was the main assessor of practical skills in just over a half (55.2%) of small business workplaces and just under half (47.4%) of office administration workplaces. However the RTO mentor was the main assessor of trainees' practical skills for just over half (52.6%) of office administration workplaces and just under half (44.8%) of small business workplaces.

Almost half (49%) of the employers reported that the main assessor of trainees' knowledge of theory was the trainee's supervisor or boss. About a third (36%) indicated that the major assessor was the assessor from the RTO. Employers did not report any self-assessments conducted by the trainee.

RTO mentors reported that the trainee's supervisor or boss was the major assessor for about half (48.1%) of the office administration workplaces, and just over half (56.4%) of the small business workplaces. The RTO assessor was the major assessor in the remaining workplaces.

Conducting assessments of practical skills

Trainees

Trainees reported that the most frequently used method for assessing practical skills was for the assessor to examine a finished product (40.5%, office administration, 31.7% small business). This was followed by assessors watching the trainees perform the skill a few times (17.1% office administration, 24.7% small business). The third most frequently reported method was for the assessor to watch the trainee and ask questions of the trainee while the trainee was performing the task (10.8% office administration, 13.7% small business) under assessment. Just 10% of trainees reported that assessors asked the trainee about their ability to perform the skill. About the same percentage of small business trainees did not know how the assessor arrived at the decision.

Although about a half of the trainees reported that they were able to re-take assessments about a third were unsure of whether or not they were able to do so. Although over three-quarters of the trainees in office administration were always informed when they were going to be assessed, this was true for just over a third of small business trainees. Trainees in small business were almost four times as likely to say that they were never informed of when assessments would take place.

RTOs

Almost nine in ten RTO mentors reported the observation of trainees' practical skills, as the most common method for assessment. However nine in ten RTO mentors also reported the use of portfolios containing work samples for office administration trainees, whereas about only one in two RTOs reported this for small business trainees. The second most frequently reported method, reported by almost two thirds of RTO mentors in office administration, was assessment employing simulation of tasks that are normally performed in the workplace. For small business this form of assessment was reported by just under half of the RTO respondents. The second most frequently reported method for the practical skills assessment of small business trainees was for the employer to inform the RTO mentor of what the trainee could do. This was reported by almost three-quarters of RTO mentors. For office administration and small business the third most frequently identified method, identified by just over half of the RTOs, was the use of performance appraisals by employers. Only one in five RTOs identified as a principal assessment method the practical assessment that took place at a pre-determined time.

Employers

The most commonly used method for assessment, reported by nine in ten employers, was the general observation of trainees' practical skills. The second most frequently used method was the performance appraisal method. The employer asking the trainees about their knowledge of a certain topic was also a frequently used method. About a third indicated that RTO mentors conducted assessments using task simulations, and just under a fifth indicated that assessments were conducted by examining portfolios containing samples of work. No employer reported employing a practical test conducted at a pre-determined time.

Employers also reported using a number of other varied methods for assessing practical skills. These included comparing performance to procedures and to the work of experienced workers, examining competent work output, using quality control measures, examining the results of specific projects and assessments, receiving feedback from others, and using a CD-ROM-based training and assessment program.

Conducting theory assessments

The principal methods used by just under half (42.9%) of employers for assessing the trainees' knowledge of theory was oral questioning of students in a verbal test, followed by oral questioning of students in a practical test (35.7%). Only about a quarter of employers reported marking written work or tests as a principal method for these assessments.

Other major methods for assessing the trainees' knowledge of theory included question-and-answer sessions, evidence obtained from trainees' everyday application of skills, discussions with trainees, and checking of written activities in workbooks. A small number of employers (5%) reported that their training programs contained very little theory.

Determining competence

Employers were asked to indicate how they believed the assessor determined that the trainee could perform the skill competently. Well over a third (40.4%) indicated that the assessor would know this when the trainee could repeat the skill successfully a number of times. One in five (21.4%) indicated that the trainee would be judged to be competent when he/she could perform the skill successfully. According to employers trainees would also be judged to be competent when they could produce a finished product which met their standards. Other methods used by employers to determine competency was for the trainee to show that he/she could repeat the skill successfully, provide accurate responses to questions posed and produce a portfolio for examination. Two employers were not really sure how these decisions were made. Others reported a combination of methods.

Other sources of evidence

Employers were also asked to report the other sources of evidence that were considered in determining the competence of a trainee. The most frequently identified of these (identified by just under half of the employers) were outcomes produced by trainees in work tasks and projects. One in five employers reported that trainees used portfolios containing samples of work or products, and just over one in ten reported the use of feedback from other staff or clients as sources of evidence.

RTO respondents were also asked to describe other sources of evidence they had observed their trainees to use to demonstrate competence. The most prevalent sources of evidence, reported by just under half of all respondents, included portfolios of samples of work, followed by practical demonstrations of skills, and feedback from other staff.

For both groups, less frequently identified evidence sources were logbooks or record books, certificates from other courses or licences, the trainees' ability to manipulate equipment, trainee responses to verbal questioning, and demonstration of trainee initiative.

Ensuring reliability of assessments

Employers

Employers were asked to indicate the major obstacles to their providing a guarantee that the trainee could consistently perform a skill which had been judged as competent. About a quarter reported that there were no obstacles to guaranteeing this because employers observed the trainee perform these skills on a daily basis.

However the most frequently reported of these obstacles (reported by one in five employers) was the lack of time for trainees to perform multiple assessments. About the same number of employers identified as obstacles the individual student's ability and motivation to perform consistently . They also reported that the lack of time and resources for all three parties to engage in adequate assessments, and for trainees to gain experience in low seasons or be adequately observed and assessed during busy periods. The attitude of the trainee to performing in a consistent manner was also identified as another major obstacle. In a small number of cases employers also reported their lack of understanding or knowledge of assessment issues and of the exact level of performance required by the competency standards for the specific industry.

As a rule employers did not believe that ensuring reliability of the trainees' performance had anything to do with the ability of the RTO mentor or the employers to conduct assessments.

RTOs

RTO mentors were also asked to identify major obstacles to guaranteeing that the trainee could consistently perform a skill to an appropriate standard. The most common obstacle identified by office administration mentors related to lack of time for the trainee to perform a varied number of tests, and the confidentiality of work tasks. Small business mentors identified the most common obstacle as the lack of appropriate equipment or materials followed by the workplace supervisor's knowledge of assessment issues.

Ensuring validity of assessments

Employers

Employers were also asked to identify the major obstacles to their being able to guarantee the accuracy or validity of assessments. Just over a quarter of all employers reported that they experienced none of these obstacles. However over one in five identified the lack of time for trainees to perform multiple tasks, and one in ten reported trainee motivation and ability as major obstacles. About the same percentage identified the lack of time for supervisors to assess and observe the day-to-day performance of trainees and for trainees to perform multiple tests. Lack of financial resources, adequacy of materials and equipment, and lack of opportunity for trainees to perform the practical tasks either because of time pressures during busy periods, or because the company was experiencing its low season were also identified as major obstacles. There were minimal numbers of employers identifying the lack of motivation of assessors to ensure accuracy of assessments. However a small group identified as major obstacles the lack of knowledge of the standards required or the role of the assessor.

RTOs

When respondents were asked to report the major obstacle to guaranteeing accurate assessments office administration mentors reported that the most common obstacle encountered in about one in three office administration workplaces was the confidentiality of work tasks which prevented trainees from being involved in certain tasks. The second most commonly identified obstacle to guaranteeing accurate assessments was the workplace supervisor's experience in assessment. For small business the most commonly identified obstacle in one in three workplaces was the lack of time to perform a number of varied tests. The next most commonly identified obstacle to guaranteeing accurate assessments was the workplace supervisor's knowledge of assessment issues.

Validating assessment results

RTO mentors were asked to describe measures taken to confirm that trainees judged as competent by employers were able to consistently perform skills to required standards. The most frequently used measure, reported by just over two-thirds of respondents, was for RTO mentors use additional questions to probe for more information. The second most frequently reported measure was to evaluate students' performance in simulation tasks. Also used were: regular monitoring of the trainee, observing practical performance, conducting additional assessments, conducting spot audits or checking , and having clearly stated criteria for assessment. For some mentors the employer's word for the ability of the trainee to perform routine activities was also used to ensure reliability.

Mentors were also asked to describe the measures they had used to ensure that the assessments used in the workplace accurately assessed a trainee's competence to perform a particular skill. The most frequently reported measure, reported by just over half of the respondents, referred to assisting workplace supervisors to establish appropriate assessment processes. The next most frequently identified measure was to use oral questioning techniques. This was followed by observation of the trainee's performance in performing the skill. Also reported were validating and checking techniques, examinations of portfolios and finished products, conducting additional assessments, checking feedback from supervisors, using simulation tasks, directly relating assessment tasks to business activities, holding discussions with trainees, and using specialist assessors for conducting assessments.

INDICATORS OF EFFECTIVENESS

Employment outcomes

Eight in ten office administration trainees believed that their traineeship would lead to future employment in the occupation. The figure was considerably lower (58%) for small business trainees. In addition about two-thirds of the trainees in small business and office administration who had not been employed with the same employer before starting their traineeship believed that they would be offered a job. Of those who had not been made an offer of employment most replied that they believed they would receive an offer once the training was over.

Development of skills

Over eight in ten trainees, employers and RTO mentors believed that on-the-job traineeships helped trainees to build appropriate work skills and over two-thirds believed that they helped trainees to build skills for life.

In addition over 80% of trainees and employers believed that these traineeships provided adequate preparation for occupations. Just over eight in ten employers and two in three trainees believed that the traineeships when completed increased a trainee's earning potential. However well under a half of the RTO mentors perceived this to be the case.

Nevertheless when employers and RTO mentors were asked to specify any disadvantages both groups raised some concerns about the limited range of skills available and the lack of time to allocate to structured training during busy periods or when the company was experiencing its low season.

Accurate assessments

About seven in ten employers and RTO mentors indicated that on-the-job traineeships helped to provide trainees with accurate assessments. However employers and RTO mentors were far more likely than trainees to report that that this was the case. Where almost two-thirds of the trainees in office administration believed that on-the-job traineeships provided them with accurate assessments, only about half of the small business trainees agreed that this was true.

RTO mentors also reported that there was also only a small percentage of workplaces in which the RTO mentor found it always or often difficult to ensure the reliability of assessments (13.5%.) and validity of assessments (12.6%).

Few major difficulties

Over two-thirds of all trainees reported that they rarely or never experienced difficulties in finding time to do their studies. However this leaves almost a third of trainees who reported that they always or often experienced these problems. In addition, over three-quarters of the trainees rarely or never experienced difficulties in getting assistance from their supervisors. However about one in five trainees reported always or often experiencing these difficulties. The overwhelming majority of trainees (87%) reported that they rarely or never experienced difficulties in understanding the learning materials.

In addition responses from RTO mentors showed that there was only a small percentage of workplaces which always or often provided them with difficulties in getting employers to provide appropriate time for trainees to meet with mentors (9.9%), and to allocate time to develop the training program (15.6%). In addition there was a very small number of workplaces where RTO mentors reported that they always or often experienced difficulties in arranging regular visits.

When employers, reported what they perceived to be disadvantages of the on-the-job traineeship program one in five reported that there were no disadvantages. However about a third reported disadvantages related to the amount of time required for training and assessment.

For RTOs the most frequently reported disadvantage related to the amount of and commitment to training provided by employers. However there were only two RTO mentors who reported that supervisors lacked skills for assessments, or that the workplace did not cover all the competencies.

Just over half of the trainees specified disadvantages involved in undertaking on-the-job traineeships. Some 16% of trainees specifically reported that there were no disadvantages. However about a third reported insufficient pay as a major disadvantage. This was the most frequently reported disadvantage. The next most frequently reported disadvantage was lack of time to devote to training.

Safe learning environments

Six in ten trainees and RTO mentors were of the opinion that these traineeships provided a safe environment for learning. The figure for employers was considerably higher. Here over eight in ten employers believed that the workplace provided a safe environment for learning.

Recommending on-the-job traineeships

One measure of a program's effectiveness is whether or not one would recommend the program to others. Almost three-quarters of the trainees in office administration and over two-thirds of the trainees in small business indicated that they would recommend this traineeship program to others who were deciding how to do their training. About seven in ten trainees reported enjoying doing the traineeship. However over eight in ten employers indicated that they would recommend this type of training to other employers.

A CASE FOR ON-THE-JOB TRAINEESHIPS

Appropriate formal structures

In making a case for on-the-job traineeships it is important to re-visit the context in which these traineeships occur and to note the structures that have been established for their success. In the traineeships examined in this study employers are required to meet certain criteria in relation to place, equipment and supervision in order to participate in these programs. In addition their involvement is contingent on partnership with an RTO. In South Australia these RTOs have also undertaken a rigorous registration process and are subject to on-going quality assurance processes. In addition the RTO mentor assigned to the trainee must visit the trainee in the workplace at least five times during the term of the traineeship. The role of the RTO partner is to monitor training, validate assessments and where requested to conduct assessments. In some cases employers and RTO partners may decide that components of the course are best delivered by the RTO. In all cases the qualification is issued by the RTO.

In South Australia these formal structures are in place to assist in the implementation of training and assessment processes which will deliver the standards established for the traineeship. However there are still opportunities for strengthening these structures so that employers, RTOs and trainees fully understand their obligations and are better prepared to undertake their roles.

Authentic learning

The greatest strength of any traineeship is that trainees are involved in authentic learning. That is they are learning from experience which is grounded in reality. This is especially so for on-the-job traineeships. Learning at the place of work means that trainees are provided with real responsibility for accomplishing tasks or providing services and must face the real consequences of the outcomes of their actions. They are learning to deal with real customers, real deadlines and real obligations and doing this on a day-to-day basis. They are learning through practice. In addition they are learning the interpersonal skills required for working with work colleagues or superiors. They are learning the values and obligations associated with the world of work.

Further employment

Substantial numbers of previously unemployed trainees in this study reported having been offered a job. Although it must be noted that the main objective of these on-the-job traineeships is to provide training through work rather than jobs, a job outcome is a positive outcome. Trainees and employers are of the opinion that these traineeships provide adequate preparation for occupations, and help trainees to build appropriate skills for work.

Partnerships between industry and training providers

These traineeships allow for training providers to come into workplaces and to be involved in the assessment of competency. This means that they have the opportunity to keep abreast of what is happening in the workplace and to assist employers to develop training and assessment strategies which will assist trainees to meet the competency standards and achieve a qualification.

The greatest drawback of these traineeships is that unless employers are provided with accurate information about their obligations and advice and support in fulfilling these obligations, training and assessment processes may fail. This is especially highlighted by the RTO mentors in this study. However because RTO mentors are in partnership with employers in the delivery of these traineeships, they too must take initiative and responsibility for ensuring that appropriate training and assessment practices are put in place. Helping employers, trainees and RTO mentors to prepare for this form of training will need to be accompanied by regular auditing for quality assurance.

Joining the training culture

Most of the employers in this study were from companies employing less than five and between five and 19 employers who had joined the program because they needed the trainee on site, perceived the program to be cost effective, and believed that it would provide a better training outcome. They also appreciated being able to provide training to meet their business needs. On-the-job traineeships allow these employers to become part of the training culture focussed on the development of skills for today and for the future.

FUTURE DIRECTIONS

Time to adapt to new training arrangements

Although rapid, the implementation of these on-the-job traineeships is still in its infancy. This means that RTO mentors and employers may not have had extended involvement with this form of training, and are still grappling with some of the issues that it might bring. It is important then that the system provides both parties with as much assistance as is possible as they establish training programs, and negotiate training and assessment strategies based on minimal or no college attendance and that the system provides regular and on-going review.

Learning from successful programs

This study has shown that on-the-job traineeships can provide workplace skills for industry. However it has also shown that individual trainee success rates may be variable, with some workplaces being especially able to deliver the training and assessment that assists trainees obtain the competencies and others struggling to meet these requirements. Providing opportunities for learning from the training and assessment strategies put in place by employers and RTOs who have had substantial success in the delivery of these on-the-job traineeships, is one way to assist those who are experiencing difficulties.

CONCLUDING REMARKS

In this paper we have discussed the effectiveness of training and assessment that is conducted in on-the-job traineeships in small business and office administration. We have come to the conclusion that trainees employers and RTOs have experienced considerable success. However there is still room for improvement in the establishment, delivery and assessment of these programs.

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The impact of e-commerce on online learning systems in the VET sector

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INTRODUCTION

Currently, there is considerable interest in developing online learning systems in the Australian vocational education and training (VET) sector, but very few successful business models for online learning systems exist in practice. Most online learning systems are like many of the speculative dot-com companies: losing money and hoping to pay dividends later. In contrast, appropriate business models help educational businesses to be effective, profitable and sustainable.

To meet this challenge of developing effective business models for online learning systems, this paper will argue that there is value in drawing from the new thinking emerging from the field of e-commerce. The term e-commerce means more than financial transactions over the Internet: it refers to any electronic communication over in business. E-commerce also provides a range of new business models that connect the design, production and delivery of online learning with the need of the organisation to operate as an effective business.

This paper is based on research by the author for a Doctorate in Education within the Faculty of Education at Deakin University, that commenced in 1997 and is continuing. The research for this paper involved an examination of possible models for online learning systems, based on a review of national and international practice. The author has recently undertaken related research for clients, including 'The Unstoppable Rise of E-health' (National Office for the Information Economy, 1999), 'Framing the Future: An E-commerce Operation' (Australian National Training Authority, 1999), 'E-competent Australia' (ANTA, 2000; to be released) and 'E-business Springboards' (Office of Vocational Educational and Training, 2000; to be released).

DEFINITIONS

Set out below are brief definitions of the three key terms in this paper: online learning systems, business models and e-commerce.

For the purposes of this paper, online learning systems are taken to mean educational structures that include a web-based technological infrastructure, online course material and online enrolment, tutoring, communication, assessment and administration procedures. Online learning systems often use complementary delivery methods, such as printed course materials.

The term 'business model' is used differently in theory and in practice. In theory, business models are conceptual frameworks for planning, marketing and managing business operations. In practice, the term 'business model' is used loosely in conversation to highlight just one process of a business, such as its unique marketing or service strategies. For example, it is said that the computer manufacturer Dell has a unique business model in that it bypasses traditional retailers by selling direct to the customer, via email, fax or telephone orders. Similarly, it might be said that company x has a unique business model in that it prides itself on its fastidious attention to after-sales service. Electronics manufacturer Sony has a business model that is heavily focused on unique design features, while it often sub-contracts the manufacturing of its products. These examples show that the term 'business model' is commonly used to describe just one business process from the six basic business processes of design, production, marketing, distribution, sales and service.

Two trends are clear when discussing the definition of e-commerce. Firstly, e-commerce was previously viewed by many commentators as predominantly an information technology issue, not a business issue. Secondly, e-commerce was previously defined by commentators as selling goods electronically. The National Office for the Information Economy (NOIE) sought to reverse these trends during 1999. In April 1999, NOIE indicated that the Commonwealth Government now views e-commerce 'as a business issue rather than an information technology issue' (*e-commerce report* *card*, p.20). In October 1999, NOIE confirmed that 'E-commerce is about a different and more efficient way of doing business' (p.2). NOIE's extensive definition of e-commerce in October 1999 was as follows:

> In e-commerce, business is communicated and transacted over networks and through computer systems. The most restrictive definition limits e-commerce to buying and selling goods and services, and transferring funds through digital communications. However, e-commerce also may include all inter-company and intra-company functions (such as marketing, finance, manufacturing, selling and negotiation) that enable commerce and use electronic mail, EDI, file transfer, facsimile, video-conferencing, workflow or interaction with a remote computer. E-commerce also includes buying and selling over the World Wide Web and the Internet, transferring electronic funds, using smart cards and digital cash, and doing business over digital networks. (*E-Australia.com.au*, October 1999, p.60)

This definition widens the scope of what VET businesses need to understand about e-commerce. While the Internet is a major stimulus to e-commerce, there is more to e-commerce than building a website. E-commerce is about fundamental changes in the way business is transacted and in the relationships between customers and businesses. It also impacts on the traditional supply chain and can force some businesses to change their ways of functioning in a supply chain, or risk missing out on business.

E-commerce also provides a raft of business models that may be of value to VET organisations. For instance, the following table cites eleven different e-commerce business models identified by Timmers (1999).

Table 1: E-commerce business models (source: Timmers, 1999, pp. 35-40)

Term	Brief Definition
1. E-shop	Web marketing of a company or a shop
2. E-procurement	Electronic tendering and procurement of goods and services
3. E-malls	A collection of e-shops, usually enhanced by a common umbrella or 'portal' site
4. E-auctions	An electronic implementation of bidding mechanisms, integrated with contracting, payments and delivery
5. Virtual communities	Members adding their information to a web site
6. Collaboration partners	A set of tools and an information environment for collaboration between enterprises
7. Third-party marketplaces	Common marketing front-end and transaction support to multiple businesses
8. Value-chain integrators	Adds value by integrating multiple steps of the value chain
9. Value-chain service providers	Supports part of the value chain, e.g. logistics, payment
10. Information brokers	Provision of information and consultancy services, adding value to the huge amounts of data on open networks, e.g. information searches, customer profiling
11. Trust services	Services provided by trusted third parties including certification authorities and electronic notaries

The above list of business models for e-commerce is not exhaustive, as innovative practitioners are constantly developing new models.

In the following discussion, the relationship between online learning systems, business models and e-commerce will be discussed.

CHARACTERISTICS OF ONLINE LEARNING SYSTEMS IN VET

A range of business models is evident when examining online learning systems in the VET sector, from the sophisticated to the experimental. The author's research shows that many of the earlier online learning systems in the VET sector were technologically driven, that is the proponents were excited by the possible applications of the technology but failed to ask users whether they wanted to use the online medium to learn.

In the mid-1990s, technology companies such as Southrock in Melbourne and TechWorks in Adelaide were among the pioneers in designing customised web-based learning systems for corporate clients such as Telstra Learning and Qantas. The business models for many such corporate online learning systems have become more sophisticated in the last few years, after some early entrants to developing online learning systems around 1996-98 were perhaps too focused on the Web platform and not on users' learning style preferences (the technology platform model). Some technology companies that have recently entered the online learning arena predominantly have a marketing model, where they contract out the production of learning materials and use mainstream, not in-house, technology to deliver their courses.

TAFE State departments, TAFE Institutes and some sections of TAFE Institutes have developed numerous web sites for online learning in the last few years. These sites vary from those costing several million dollars to ones developed on a small budget. In some cases the sites were designed by external parties, sometimes the sites were designed in-house and in a few cases the TAFE organisations purchased off-the-shelf software. The larger State web sites have varied from those that focused on online course materials (the library resource model) to those that focused on constructing a site that demonstrated the use of leading edge technology (the lighthouse model). Many of the smaller web sites are not underpinned by a business model, so much as a desire to experiment with technology (the play pen model) or to hopefully provide support services for students (the altruistic model). It is interesting to note that private Registered Training Organisations in the VET system have been much more cautious in entering the arena of online learning systems, constrained by the bottom line.

Two ANTA national staff development programs, Framing the Future and LearnScope, have extensive web sites providing online learning opportunities, but the websites are based on different models. Framing the Future's website is part of an e-commerce approach to providing services, while LearnScope's website aspires to the 'virtual community' model. Framing the Future's website is analysed in Mitchell (1999) and is discussed further below.

FINDINGS

The author's research indicates that online learning systems need to be underpinned not just by technological platforms and catch-up professional development. Online learning systems need to be underpinned by business models that take into account factors such as the desired educational outcomes, the nature of the medium, the profile of the users, the need to be cost effective, the need to cater for different markets and the importance of appropriate marketing strategies. Effective and enduring business models for online learning systems need to be based on an understanding of the complexities of the different users, the medium, the subject matter and many other factors.

Paulsen (1998) provides a summary of a 'holistic Online Teaching System', identifying the elements of the online teaching process and explaining how those elements are related. He emphasises that planning choices need to be made in online teaching systems regarding the choice of target group, choice of subject matter, choice of enrolment scale, choice of study location, choice of scheduling and the choice of media. Such choices are only the beginning of developing a thorough business model for an online learning system.

There will always be differences in the business models established by different types of organisations developing online learning systems. For instance, the business model for a small, independent technology company developing customised solutions for training organisations differs from the business model of a multinational software developer developing global online courses. Equally, the business model for a niche registered training organisation will differ from the business model of a State-wide TAFE system. The differences will relate to matters such as the organisation's positioning in the market (e.g. market leader or follower), marketing strategies (e.g market penetration or market development), competitive strategies (e.g. cost leader or niche player) and selection of markets (e.g. growth markets or mature markets). Differences will also be evident in the ways these organisations develop products and services, from developing product in-house to outsourcing part or all of the development.

The author's research indicates that large, State-wide TAFE organisations building online learning systems experience difficulty in working through business issues such as marketing, competitive strategies and product development strategies. State-wide TAFE organisations providing online learning systems are often constrained by significant political and community pressures, such as the need to provide high quality, low cost, widely accessible and well supported online courses.

The result is often high institutional costs and slow production rates, due to developers' inexperience with online development, and low enrolments, due to the lack of awareness and readiness of the market (see Warner et al, 1998).

The author's research suggests that organisations such as State-wide TAFE online learning systems will succeed where they develop business models that circumvent the above constraints and are based on business principles. These principles include being clear about what is their core business, selecting a mission statement that is achievable, understanding the market and developing services that are wanted in the market, developing effective marketing and product development strategies, inducting new users, training staff, changing organisational structures to accommodate the new delivery systems and establishing realistic pricing policies and strong financial systems. Selecting the technological platform is only one of the business considerations and not the main one.

It is insufficient for TAFE Departments to have brilliant technology on show on their websites. The websites need to be synchronised with a flexible organisation. Don Tapscott, *Creating Value in the Network Economy* (1999), argues that businesses need to reinvent their business models around the Net or they will be bypassed:

> When it comes to creating value in the network economy, questions still outnumber answers. But the evidence is growing. Firms that don't reinvent their business models around the Net will be bypassed and fail. In the year 2020, we are likely to look back and see that companies fell into the categories of those that 'got it' and those that didn't. (p. xxvi)

While there are differences in the ways organisations will devise business models, the author's research also indicates that some similar criteria need to be applied by all organisations when establishing online learning systems. These criteria include a focus on the customers' needs; the provision of a solution that is customer-centric not technology-centric; access to qualified content providers, instructional designers, online tutors and technology advisers; availability of a user-friendly, fully supported and easily maintained technological infrastructure; efficient and timely production systems; and the cost effective use of complementary delivery systems.

At a more sophisticated level, organisations developing online learning systems need to incorporate in their business models an understanding that online learning systems potentially change the relationship between the customer and the provider, giving the customer much more choice, including the opportunity to easily select another online provider. Controversially, online learning systems also require the development of different organisational structures, as online learning systems eliminate in some cases and alter in other cases the roles of intermediaries, such as librarians, classroom teachers and campus based support staff. The word 'disintermediation' has been coined by the e-commerce community to describe this change in relationships:

> service companies will be in a better position to deal directly with their end customers without the assistance from traditional intermediaries (retailers, wholesalers, distributors or brokers). (Hagel & Armstrong, 1997, p.12)

Disintermediation means that Microsoft can make its certified training available online anywhere in the globe, without needing bricks and mortar or any of the other traditional educational staffing and infrastructure.

The Web environment enables the development of very different business models to the traditional models. For instance, models of traditional educational organisations have been pivoted on the following types of factors: students attending classes dominated by teachers; the architecture of the educational organisation dictating class sizes; the location of the buildings forcing students to travel; and industrial conditions influencing the number of classes offered. In contrast, the web has created the environment for new student markets, new relationships between providers and customers and new ways of conducting the business of teaching and learning.

The web environment has spawned not one but numerous business models, from the global business model of Microsoft's certified training courses to the model of providing tailored courses for students within the one organisation. While different models are available, for an online learning system to be effective, the business model needs to be pedagogically sound, customer-centric, competitively priced, appropriately positioned within the market-place, cost effective to produce and well supported - technically, administratively and educationally.

CASE STUDY: FRAMING THE FUTURE

The following case study provides an example of an online learning system being used as part of an e-commerce business model.

Framing the Future is a national staff development project designed to assist staff to develop the skills required to implement the National Training Framework. A study of Framing the Future's business management processes was conducted from July-September 1999 by John Mitchell & Associates (Mitchell, 1999), and the business processes were analysed in terms the extent to which they demonstrated e-commerce principles. Framing the Future's main business strategies include the use of a website, telephone, post and numerous publications, as well as personal contact via workshops and visits. Many of these strategies could be called e-commerce techniques, as e-commerce involves the use of digital data and electronic communication to provide products and services.

A website is just one of the electronic communication tools used by Framing the Future and it is part of an effective online learning system. Framing the Future evaluator Field (1999) noted:

> This data suggests that a considerable number of staff in the VET sector are using the Framing the Future website to extend their knowledge. The 'projects' page is really a repository of information about past projects; the 'publications' page and the 'information' pages reflect interest in workbased learning and general aspects of Framing the Future; use of 'what's new' reflects quite high levels of interest in keeping up to date with recent program features; and 'related links' provides a doorway into learning about other VET sector programs and initiatives.

The Mitchell (1999a) report shows that informed businesses such as Framing the Future are using e-commerce approaches to improve business performance, such as improving their use of existing resources, enhancing their existing services and increasing their marketing reach. The Framing the Future online learning system is just one component of this flexible business operation.

IMPACT OF E-COMMERCE

Apart from exceptions such as the Framing the Future project management, and initiatives such as Qantas Online College, the impact of e-commerce business models on online learning systems in VET has been slight. However, the potential impact of e-commerce on online learning systems in the VET sector is very significant. The implementation of e-commerce principles within VET organisations can bring about new approaches to designing, producing, marketing, distributing and providing services. When an organisation adopts e-commerce business models, the online learning systems can become a part of the integrated business, not a peripheral activity.

What we have witnessed in Australia in recent years is the regular development of online learning systems that are driven by technology and not business models, within conservative, rigid organisations. It is important for VET businesses to monitor the emergence of e-commerce, as e-commerce provides a range of business models that position online learning systems as just one component of a flexible organisation. Kalakota and Robinson (1999) warn that

If a business design is faulty or built on old assumptions, no amount of fixing and patching will do any good for competing in the digital economy. (p.7)

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Exploring capacity-building

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This paper reports on a case study of a small private training provider in Victoria. Our aim was to examine this organisation as a basis for better understanding the impact of recent education and training reform and its implications for the future of education and training. Specifically, the project:

Investigates emergent forms of educational practice that are arising as globalised processes and neo-liberal reforms confront nation-states and their specific national traditions and systems of education;

Theorises 'capacity-building strategies' as a particular type of emergent educational practice; and

1. Considers the infrastructural support that is necessary to sustain capacity-building strategies and the implications for on-going education and training policy and practice.

BACKGROUND

Recent reforms of education and training in Victoria are part of a global trend toward a 'post-welfarist' society in which governments reorient their work away from a societal level and, instead, operates increasingly through individual actors and the choices they make. As (Rose 1996: 327) notes, this work 'seeks to govern without governing society, to govern through regulated choices made by discrete and autonomous actors'. In adult and vocational education and training these neo-liberal developments have led to the formation of a training market in which existing public provision is re-regulated so that particular TAFE Institutes and community providers become discrete VET enterprises with increased opportunities to choose their course of action within the regulatory frame. These public providers then stand alongside a growing number of private providers which can now access public funds to support their training contracts with particular clients. These marketising trends stimulate both deinstitutionalisation and quasi-privatisation of adult and vocational education and training. They encourage innovation but oriented towards particular client services rather than public service in general. These trends are confirmed as governments demand accountability on financial and managerial grounds but downplay accountability on social justice, equity and democratic participatory grounds. And politics fracture around issues of private versus public goods, responsible economic management versus social justice, and neo-liberal versus new social democratic forms of government.

Practitioners within adult and vocational education and training are actively involved in this politics of reform within education and training. They are caught by the imperatives of government, realised through changes in funding, policy, employment relations and work practices, which demand changes in their work, their identities and their commitments. Yet they are also resistant to change, particularly when their values predispose them to supporting student's learning, supporting their occupational culture and supporting the public good. Working between compliance and resistance, some teachers and managers in education and training are renegotiating the character of educational practice. They are developing new ways of doing and supporting learning. These emergent educational practices, arising as neo-liberalism confronts traditional education and training cultures, have been described as 'capacity-building strategies' (Fullan 1998; Seddon and Malley 1998; Seddon 2000).

THE PROJECT

The purpose of this project was to investigate capacity-building strategies with a view to better understanding the character of these educational practices arising at the interface of neo-liberal reform and systems of education and training, and the conditions that support them. The project was funded by the Australian Research Council and conducted in cooperation with the registered training organisation (RTO), the case study site. This cooperative relationships permitted a co-production of knowledge between the principal researchers from Monash University and staff at the RTO.

The case study entailed intensive data collection over a period of 5-6 days. The researchers engaged in informal conversations with staff, conducted nine formal interviews with selected individuals, conducted a focus group to test out preliminary analyses and attended a staff development day as observers. On the basis of these sources of data, together with documentary sources, a profile of the RTO was developed. This profile was discussed by RTO staff and used as a basis for dialogue with the researchers over analysis and interpretation. This paper is one of the outcomes of this research process.

The researcher's process of analysis was informed by a review of literature on emergent educational practices. This included functionalist literature on learning organisations and educational change, and more socially critical research which seeks to understand the contexts and conflicts around social and educational change. Our strategy was to draw insights from the functionalist literature which has generated the notion of 'capacity-building' while also critiquing it. Particular sources within the socially critical literature were selected because they offered ways of fleshing out the functionalist picture of 'capacity-building', revealing capacity-building as a more grounded, contextualised and political process. This re-theorising of 'capacity-building' provided sensitising concepts which were used to structure the analysis of qualitative and documentary data.

LITERATURE REVIEW

The term 'capacity-building' is found increasingly commonly in the research literature and the discourse of education policy and practice. Yet very often, the concept is relatively empty. It is used to allude to learning processes within organisational contexts and to the inter-related processes of individual and organisational development through which learning is realised. (Fullan 1991: 348) captures the sense of the concept when he notes that 'any time we focus on capacity-building, we create systems that to some extent have minds of their own'. But (Miles 1998: 64), writing as if he is looking back from the year 2020, notes:

> In the 90's change researchers spoke of 'getting better at change' and 'building capacity'. But no one had a very clear model of just what this involved. It took a series of conceptual and empirical breakthroughs, well into the 10's, before we came to understand how a 'school' actually manages both change and its twin, stability, in a coherent way.

The notion of 'capacity-building' has become significant in recent years as a result of convergent theoretical debates about the way learning is implicated in processes of social and organisational change. These debates, within and beyond education, are differentiated by research perspective (ie. functionalist or socially-critical research traditions) and also by research focus (ie. on macro-, meso- or micro- processes of change). Four research traditions have been drawn upon in framing and analysing this project:

1. Functionalist theories of organisational learning (eg. Argyris and Schon, 1978; Senge, 1990)
2. Functionalist theories of educational change (eg. Fullan 1991; Hargreaves, et al. 1998)
3. Institutional theories of continuity and change (eg. Cammack 1992; Goodin 1996)
4. Socially-critical theories of society, organisation and education (eg. Castells 1998; Clegg 1996; Williams 1976).

Functionalist theories start from the view that social life is broadly consensual, without endemic and ongoing social conflicts. Very often a system approach is adopted. Analysis focuses on an organisation or society as if it was a system, or organic unit within which there are functional interdependencies between different parts. When conflict is encountered it is commonly seen as a dysfunction or some kind of deviance from system norms. While this oversimplifies the picture, this broad approach is evident in much management and organisational theory.

Traditionally, such functionalist research emphasised the way individuals are socialised into organisational processes and cultures. It tended toward an 'oversocialised' view of people which implies that individuals and groups cannot exercise agency within organisational contexts because they have fully embraced organisational norms. More recently, this oversocialised view of people has been rejected and there has been more attention to the agency that social actors exercise within different contexts. Agency is evident in the creative responses individuals and groups develop within organisational contexts and is particularly striking in contexts which are subject to rapid change. Such organisational contexts are seen to exercise constraints on agency and also to provide resources which constitute and shape agency in particular directions. The implication is that social actors are not simply socialised into organisational norms but work within the non-negotiable organisational rules and draw on a range of resources, in and beyond the organisation, to learn. They make sense of their contexts in particular ways, generating meanings which frame and inform their action, leading to creative and innovative responses. Agency is seen as a constructivist process, a process of learning.

This new functionalist attention to agency has focused attention on learning in organisations and, more particularly, on learning as a means to organisational change. The logic is simple. If individuals and groups are active agents within organisations and their actions are driven by their learning, then organisational change - seen to be necessary because of rapid social change - can be facilitated by encouraging learning. Early work on organisational learning emphasised the importance of single and double feedback loops in organisational processes, arguing that organisational improvement required individual insight and learning to be captured within organisational structures, procedures and routines (Argyris and Schon, 1978). Senge (1990) took the notion of organisational learning further by linking it to processes of continuous change and by clarifying the 'five disciplines' which permit organisational learning. He emphasises that a learning organisation 'is continually expanding its capacity to create its future'. This ever expanding cycle of learning in which people create 'the results they truly desire' (p.3) is achieved by joining 'survival learning/adaptive learning' to 'generative learning' (p.14). Senge's key contribution is to identify the organisational and work practices that support such generative learning as the five disciplines: personal mastery, the development of mental models, building shared vision, team learning and systems thinking.

Theorists of educational change elaborate the insights of management theorists, like Senge, by emphasising that the management of organisational learning and change must attend to knowledge utilisation which underpins both individual and organisational learning. Effective knowledge utilisation depends, firstly, upon an appropriate infrastructure that supports learning within organisations. As (Darling-Hammond 1998) argues workplace reform requires all people to learn to think critically, invent, produce and problem solve. This means that the purpose of education (at all levels) must shift away from selection and differentiation, towards a 'pedagogy of understanding' that permits all learners to understand new ideas deeply enough to apply them to novel situations and to perform proficiently in their own right (p. 647). The infrastructure for organisational learning depends upon individual's having the capacity to learn how to learn; the availability of people who can enable other's learning (ie. teachers) and an appropriate public policy context that encourages investment in individual and organizational learning - 'in the human capital of the educational enterprise' (p. 645)

Secondly, organisational learning and change depends upon 'moral purpose', a commitment to making a difference. But, as (Fullan 1998: 222) argues, moral purpose is problematic today, given rapid social change and the widespread questioning of tradition and authority (what Giddens (1994) terms 'detraditionalisation'). It means that moral frames cannot be taken for granted as in the past but must be renegotiated in a contextualised way. The implication is that the values frames within which individuals act are adopted conditionally and require individuals to 'keep faith' despite the system (p. 224). Such values inform leadership, provides a basis for 'shared vision' (Senge, 1990) and therefore frames knowledge management and utilisation. As Senge (1990: 24) comments, the 'appearance' of consensus is important management work, depending up the active construction of consent and the management of difference and conflict in the workplace.

In summary, functionalist theories affirm the significance of learning in organisations because it is a means to necessary organisational change. They provide three key concepts for analysing capacity-building organisations: (1) organisational and work practices; (2) infrastructure; and (3) moral purpose. The implication is that capacity-building strategies depend upon a distinctive work organisation that supports learning, an appropriate infrastructure oriented to investment in learning, and a moral purpose committed to making a difference through learning.

Institutional and socially critical research offers a variety of perspectives which cut across and enrich these functionalist insights. Institutional theory considers the explicit and tacit institutional rules that shape individual and collective behaviour within a domain of social practice. It attends to the way contexts constrain, constitute and shape practice (institutional analysis (Cammack 1992)), and the way contexts can be manipulated in order to change behaviour in a purposeful way (institutional design (Goodin 1996)). Socially critical research traditions overlap some institutional theory by conceptualising social contexts in terms of the enduring conflicts over institutional rules and access to resources that characterise contemporary capitalist society. Other institutional theorists downplay social conflict and suggest that contexts are merely the outcome of individual choices.

Through the 1980s and 90s, these latter approaches rooted in rational actor institutional theories have had a significant impact on public policy and patterns of governance, driving moves to roll back the public sector and extend the reach of the market in the provision of goods and services. But increasingly, there is awareness that individual choice exercised through markets is an insufficient basis for managing social life. Practical historical developments show that recent government reforms aimed at fixing up 'economic fundamentals' may not be sufficient to optimise the globalising economy and its social and political infrastructure. There is now resurgent interest in the way the market is embedded in society and culture. The new policy challenge is to orchestrate state regulation, social institutions and community activities to create a medium of trust and reciprocity that makes market relations possible (Fukuyama 1995). This challenge is being taken up by governments around the world but is being realised in different terms. For advocates of Third Way politics (eg. (Giddens 1998; Latham 1998), the task is to build capacity for economic and political development through promoting learning and through community development. For others, the task is to invest in and manage 'social organisation such as networks, norms and trust that facilitate coordination and cooperation for mutual benefit'(Falk & Harrison, 1998: 613). Capacity-building is a form of microeconomic activity, ' a form of investment within the local population to upgrade local physical and human resources' (Falk & Harrison, 1998: 612).

The importance of this institutional and socially critical literature is its sharp contextualisation of capacity-building in the dynamics of contemporary capitalism. Capacity-building no longer seems like a consensual process within a system but a stake in the ongoing politics that is endemic to our unequal society. And it is a stake which is increasingly significant as industrial capitalism takes on the appearance of a 'knowledge society' (Castells 1998).

Diverse traditions within socially critical research provide a basis for unpacking capacity-building in a more discriminating way. Such theorising (1) contextualises capacity-building in broad processes of social and cultural change, and in more localised developments that are encouraging the formation of network organisations (Castells 1996); (2) theorises these network organisations and reveals the complex inter- and intra-organisational politics which accompany learning and the way coordination and control is reworked to advance organisational purposes (eg. Clegg 1996); (3) reconceptualises teaching and learning as knowledge transactions (Lusted 1986) and highlights the complex politics around issues, such as, whose cultural resources are privileged and codified as 'knowledge' (Apple 1997)? How knowledge transactions are institutionalised to create selective traditions which confirm inequality (Williams 1976)? And (4) opens up the notion of individual moral purpose as a 'political project', a form of collective action which arises, consciously or unconsciously, because individual moral purposes are socially patterned by the social relations of contemporary society. This social patterning is evident in the way individuals and groups coalesce into particular identities which act in relation to particular antagonists or opponents, and in relation to particular political stakes. It is also evident in the formation of the 'great cultural orientations by which a society's ... relationships are normatively organised' (Touraine 1981: 26).

These elaborations suggest that functionalist insights about the significance of work organisation, infrastructure and moral purpose that sustains capacity-building must be contextualised in the history of contemporary capitalism and in the politics of learning and work. The development of these elaborations are beyond the scope of the current paper but flag the future work of the project. We return to them briefly in the final section of the paper.

CAPACITY-BUILDING AT THE RTO

The RTO is a private company providing workplace training. It is owned and operated by its directors and staff. The company operates within the context of the Victorian system of vocational education and training that sets the criteria which Registered Training Organisations are required to meet. Its income is derived from state government funding, channelled through the Office of Training and Further Education, and from private industry training contracts. The proportion of public to private funding for the 1998-1999 financial year was 70 percent.

The RTO was established as a private training company in 1994 and started operation in 1995. Its main business is the design, development and implementation of industry-based training programs, initially in the automotive industry but later in local government, food, transport and storage, and light manufacturing. The hallmark of the company is its distinctive approach to training. The RTO designs and delivers 'integrated training' that is enterprise-specific and which provides an holistic and integrated contextualised program for learning. It also offers professional development activities for staff in Technical and Further Education (TAFE) Institutes and universities. The company also has a commitment to research. It has a commitment to reflecting on and documenting its practice with a view to developing grounded theory.

The organisational structure of the RTO is flat. There are two directors each with designated responsibilities, a further 8 teaching staff, most of whom work part-time and three office staff. The two directors, another manager with designated responsibilities and two office staff make up the management team. Consultants are employed on an occasional basis in specific projects. The company has also developed good relationships with a wide network of individuals and agencies which provide further support, advice, partnerships and contracted assistance in various contexts. While directors have formal designations, there is considerable movement between teaching and managing roles which is governed by the strengths and expertise of different individuals. It means that while staff recognise that there is a 'boss', they turn to individuals with specialist expertise when they need advice or assistance. This specialist expertise is acknowledged in job designations but is also known informally through close interpersonal relationships. The staff have developed these relationships and ways of working because of their shared philosophy of adult education and their expertise as reflective practitioners. The company further affirms individual expertise by actively encouraging a learning culture in the workplace by organising regular staff development days, encouraging staff to reflect and write about their work, and supporting staff to undertake further study. Almost half the teaching and managing staff have, or are working for, Masters (3) or Doctoral (2) degrees.

The RTO's business approach was described by one director as 'applied adult education' (Robert). Its fundamental aim is the promotion of a more effective learning culture within client organisations and in other partner organisations. The company believes that learning within the workplace should be easier, richer and more effective after the RTO's involvement than it was before. Staff emphasise that this kind of training outcome depends significantly on their capacity to build effective relationships within each client organisation. This approach to training is driven by an educational philosophy which has developed through various projects in which the directors and staff have been involved. The company's induction manual emphasises the commitment to 'developing context-based learning experiences and activities in each site' and indicates 'a resistance to the idea that effective learning activities and training can be pre-formulated and imported into a client organisation. These commitments are spelt out as a set of guiding principles in the RTO's induction handbook which assert: the importance of input from people at all levels in a company, not just managers; the significance of forging good relationships within each training site; the creating within workplaces of a learning culture which empowers employees to deal with change; the need for workers/trainees to have some stake in the design and delivery of training; and an understanding that it is in the interests of all members of client organisations that training be holistic, contextualised and linked to the wider social context in which organisations function. This means that the RTO expects workplaces to be clean and safe, and to have a climate which is respectful, tolerant and non-discriminatory.

The idea that the RTO 'made a difference' in the lives of individual employees or in a company was a key theme, although as a manager noted, its easier to effect change in a small company than in a multinational. One teacher recounted an instance of this kind of change:

> I remember a man at X company who was 62, 63, who was the team leader of an area. There were three sheds and he was right in the back corner of the back shed. So he was far away, a good five-minutes walk from the front offices. And he came into class, and everyone said, Oh, you're not going to have much luck with [name], he's a cantankerous old ... (and he was). His people were over there. He had what were [perceived] to be the rejects with him. They just packed these [car] bonnets into cartons and sent them off. That's all they did. After we left, he actually became the team leader of the group right in the centre of the warehouse - next to the oasis where all the managers were. And he changed so much. He decided it was boring over there and he came [over to here]. It might not have made a difference to the whole organisation but it did, because he was there with all his knowledge. It's the individual stuff that can be quite good that you can do in a big company. You can't turn an oil tanker round in five minutes, but you can get the workers on it thinking differently...

A more detailed picture of the work of the RTO can be developed using the functionalist categories outlined above: work practices, infrastructure and moral purpose.

Work practices

The RTO's aim is to develop site-specific curriculum and pedagogy. One teacher described the beginning of the work:

> Our view is, you go into the client organisation, you look at the organisation, you talk to the people. You have a brief to run a particular program, which has probably got some kind of curriculum, but then you look at the situation and say, 'Well, how is it best to do that here?'. In the circumstances we have, we'll run a program and it will fit the curriculum, but it's done to suit that particular workplace. We won't start out from the point of view of the curriculum, if I can put it that way, its going and looking at what the problems are in the organisation, what the people need to learn. And then work out how we can do that? What's the best way of doing it? (Terry).

The teacher spoke of the real constraints of time and resources but emphasised that the RTO chooses to achieve the desired learning goals by means that the teachers and learners find most appropriate and relevant:

> Let's say a program, a competency-based program, says there are 240 hours available to cover the content. So many hours for this unit, so many for that. Well, we can say 'Right, we've got that number of hours. We can take this bit and we're not going to do any of that, we're going to spend it doing some other stuff. But we'll still achieve all of the things that the program says. We're going to do it in an entirely different way.... If you can [do that] within that particular setting then you start to get some results. Different sorts of results, and I think that starts from the personal. So that relationships are important. The one to one sorts of things. You know, you can give people a whole lot of knowledge on a formal basis and it's questionable how much they will actually implement. (Terry)

Such pedagogic innovation cannot be done unless the teacher understands the particular industry a company is in and has a feeling, based on real experience, for the whole operation:

> You really have to understand the processes that are happening. I'm working with manufacturing processes, so you really have to understand ... that sort of environment or the whole picture of what's going on. There's the mechanical aspect of it and there's the financial aspect and the human aspect. You know, for eight hours a day you're sanding things like they were today, or stains are all running and not drying and, you know, all sorts of things... You have to get into the heads of various people, you know, the management people, where are they coming from? How do they see things? How do people see each other? What sort of cultures have they grown up in? So I tend to think, well, how can I meet these people? At what sort of point can I meet these people at which we can start to talk? (Terry)

For this teacher, effective teaching and learning requires the creation of good relationships between teacher and learners. What he brought to the work was himself:

> You teach who you are and what you are. What you are is what comes across. ... Your being the way you approach people, your character - that is what determines whether people hook into things, decide that what you are saying is interesting, you know. ...what I believe is, first and foremost, you must establish those relationships and establish a relationship of trust... all of those things that build people's strong relationships. The process of developing that can be around different sorts of contexts, working together, and only time will establish that relationship so that you can have the potential to have more impact in the are because of the relationships you've created. I think, if you can create those kinds of relationships and you know that, that's when the dynamism starts, people start to work together. (Terry)

This point about the crucial importance of relationships was reiterated over and again in the interviews. Time and trust are involved. As a teacher commented in a focus-group, the RTO is 'a relationship-building organisation'. Some of the RTO's staff were recognised as having a particular gift for developing appropriate relationships but everyone acknowledged that getting those relationships going was the key element of their work during the early stages of a project and keeping them going remained crucial throughout the entire period of a project.

Infrastructure

The capacity to build good relationships was built into the RTO in a number of ways. Perhaps most importantly, there was strong relationships between the staff. Time and resources were allocated to continually reaffirming work relations. The teacher above indicated that he spent a lot of time talking with other teachers and managers at the RTO:

> ... we do a lot of talking. We sit there all day trying to do our work and, actually, bouncing things off each other. That's how I like to do things anyway because its very easy to assume that everybody has the same view ... and its not the case. So things like that need to be [talked through]. We do these things differently (Terry).

Another teacher, with substantial work experience in other training contexts, affirmed the importance of this interpersonal staff support:

> I have to say that people in this organisation are wonderful people. They're ... a privilege to work with, I mean they're a privilege to know... I think people here are fantastic. They actually know how to be supportive and good listeners, you know, people who accept you as you are. They share all their materials. They've always been interested in what you're doing and found worth in your work. (Elsa)

These interpersonal relations depended upon careful staff selection and continuous staff affirmation and development. Administrative staff described complicated selection processes and the continuing importance of in-house learning opportunities. These frequently occurred when more senior staff supported more junior staff as they developed their skills and took on more responsibilities. Office staff spoke with pleasure and pride of being asked to speak about the organisation at a staff celebration and of being inducted into new tasks and networking activities. The fact that the RTO's staff were educators did seem to be important. They approached each other as teachers and learners when there were opportunities for learning, or as colleagues who discussed their professional practice in a critical yet supportive way. Reflection on practice was encouraged and lived on a day to day basis. As a teacher commented, the organisation had 'nourished her in a way that's been fantastic'.

These learning relations amongst staff were extended through full-day staff development days where staff were invited to share their views of current developments at the RTO and in the wider world of work and learning. One such day included a presentation by an academic on workplace change and another by a lawyer who was involved in a notorious occupational health and safety case (the Longford gas explosion). The role of training in supporting workers in these situations was emphasised and provided opportunities for lively questioning and debate, social bonding between staff and the reaffirmation of common value commitments.

The time and resources for building relationships with client organisations was built into training contracts as an explicit process of 'immersion'. The RTO insisted that before teachers could design and deliver training, they had to have time to get to know the client organisation. This involves speaking to people at all levels of the company, studying the company, ensuring access to all staff rather than being cocooned with managers or personnel departments. This period of immersion enables staff to develop an informed sense of how a workplace fits together, how it all works and what everybody does. It means that when teachers bring their technical expertise to a training contract, it is mediated by the workplace itself. More importantly, they are better able to harness their technical expertise to the specific workplace so that knowledge becomes situated because it has been acquired and adapted on-site and with the learners.

The RTO also protects the crucial work of immersion and of building strong teaching and learning relationships within client organisations from the work of negotiating the more managerial dimensions of client relationships. Each teacher working on-site in a client organisation is supported by one of the three managers. It is the managers that do the sometimes difficult work of negotiating the scope of a training contract, its cost and the workplace requirements necessary to support the training. The managing director explained:

> Between the three of us (managers) we [take] a project management role on every project that's run. As well as the on-site trainer (called the project officer), one of the three of us goes to the meetings held on-site, as project manager. That's because we believe there are two roles to be played on the site project management committees. One is a management role and the other is the project officer. If the project officer has to play both of those roles they find themselves in the position where they're having to do

> tough negotiations as well as being warm supportive people. [As project officers] they need to be able to get on with everybody, whereas we can go in as managers and take the tough line if we need to. So if the project officer is not getting a fair go in a particular enterprise and they're not being given access to the people or to the line or workshop floor or anything, we can say, Well, that has to stop. The project brief states that they will have this access and basically they've got to have it (Tricia).

This kind of organisational support within the RTO is, itself, supported by the broader infrastructure provided by recent training reform. As this description of the project management role indicates, the RTO asserts their position within the contract of training to lever necessary conditions for training within workplaces. This includes having access to relevant staff at all levels of the client organisation. This history of training reform with its strong industry orientation means that the organisation has drawn on union as well as company resources in negotiating the context for training. The availability of public funding to support microeconomic reform has provided a financial buffer.

Moral purpose

The commitment of the RTO's staff to a shared (or partly shared) vision or set of ideals was a recurrent theme in the interviews. The core themes were captured by one of the managers in describing the RTO's core work of developing and implementing training:

> I think of it as going into an enterprise and saying 'What can we do in this enterprise which is going to help this place be a better place?' So I mean that's the idealistic sort of vision ... but at the end of the day we would want our work to contribute to some meaningful and useful change in that work environment and a change that will help to make it a better place for the people who live and work there, particularly the shop floor people. (Robert)

Another manager described the RTO's work as follows:

> I believe we're not just working for us, we're working for the people we're training and we're working for a whole pile of things. So apart from being here to make money, its also about making things better for various people that are the shopfloor workers or they're managers or they're parents in a school canteen. And its not about doing it for them, it's about helping them to get there (Rosalie).

But as one of the teachers commented, this ethos creates tensions for the trainer:

> ... you lean towards the workers rather than the management but it is, in fact, the management who are allowing [the RTO] in. So there's [the RTO] in there with an agenda that it wants to do the best by those workers - but what I would like and what management wants maybe are different things. (Terry)

Such dilemmas are common to most training programs run by the RTO. Whenever the organisation contracts with a company to provide training they have to negotiate the frame of reference within which this training will be provided.

> In some cases people won't know how they want it [the training] done, or they'll think they want it done in a particular way. Well, I know that's not really going to be effective [but] there could be all sorts of reasons why they want that – political considerations, manufacturing considerations, management considerations, plain ignorance, all sorts of things. That's always there, its a possibility. And you've got your own ... agendas that you many not be aware of, and paradigms and things that you're working by, and, all of a sudden, your in a situation where you can't do that. So its about being aware of all these complex things and finding a way. (Tricia)

The point is that trainers always sit between workers and management and their conflicts which occur within a relatively narrow enterprise or industrial frame of reference. They are a fact of life and have to be constantly negotiated by the RTO but they are not the whole story. There are broader politics which have significance in the world beyond these narrow industrial frames of reference. The managing director, for instance, sees the RTO's engaged in an educational agenda:

> ... a lot of people thought we were nuts because we'd go out there and talk visions and education with companies, and we do – well we put it in their terms – but what we're talking about is an educational vision not a training-type vision. We saw a whole range of people out there who needed training and what they were getting was not suitable... I went into classes and saw what [teachers] were doing. I

> thought, this is the way it has to be. I wouldn't have come up with that on my own, I'm not that good an educator, but I recognised it immediately. ... It was a question of saying, all right, that's the way we want to go. Reality isn't like that most of the time but, when we make pragmatic decisions, we still retain those principles that we think are the best, the ideals, the visions. So you don't feel as if you are trapped in a negative world. You know that it can be better... (Tricia)

Another manager also saw the politics of the RTO in broad humanistic terms. The issue was social justice:

> What do I find important? I'm a firm believer in justice. I'm a firm believer in equality and justice. Everyone has a right to be treated equally and fairly and right. I have I suppose what you'd call small 's' socialist principles. I don't see myself running around with a red flag but I believe that everyone has the right to be treated fairly and I hate injustice and I hate, hate bullies. I will confront a bully any day. I cannot stand bullying because most bullies, when they get some pressure back, give way. And I hate bullies ... Some of the people we come across in industry are bullies and you've got to find ways to work around them. (Rosalie)

BEYOND FUNCTIONALIST PERSPECTIVES

Functionalist perspectives provide a way of conceptualising the RTO as a capacity-building organisation. The organisation has distinctive organisational and work practices, has an infrastructure that sustains the relationship-building which is fundamental to its mode of working, and is imbued with moral purposes about the importance of making a difference through learning. Yet somehow these features of the RTO do not capture its character or significance to any great extent. While more analysis is clearly called for, the functionalist framework does not adequately capture the depth and intensity of the processes of learning and work at the RTO. There appear to be four main features which give the RTO its substance and its capacity to act. These are:

- The practical politics of the RTO in both its dealings with clients and as a workplace. The organisation and work practices are not simply functionally managed arrangements but have developed through processes of trial and error, reflective practice and through the dissent and dialogue that accompanies participation in processes of development and governance. The character of the RTO is an outcome of broadly political processes which reflect the interpersonal interplay within the organisation and its tensions and conflicts;

- The impact of infrastructure, within and beyond the RTO, which frames its action and its silences. This is particularly clear in the way training reform has enabled the development of the RTO as a specialist private training provider. The RTO has been able to take up particular spaces within the array of national training provision. It has used the market, public funding and contractualism to advance a distinctive training agenda and this has provided a counter-position to much of the training orthodoxy that has developed as a result of the implementation of administrative technologies, like CBT;

- The content and resources available to the RTO through its staff and wider networks determines the kinds of actions and developments that are possible. The combination of adult education philosophy, personal histories rooted in the experience of ethnicity or class, longstanding relationships between staff, commitments to a broadly humanist social justice politics which, in the context of training reform, appears as advocacy for workers, all contribute to a distinctive way of seeing, acting and being in the world. This content provides the foundation for the RTO's capacity-building - a capacity-building which is committed to making a difference by working for a socially progressive future; and

- The moral commitments of staff underpin the dynamism of the organisation. These commitments are lived as a consequence of individual's experience and biography and, because they are foundational in people's lives, they provide a firm basis for the RTO's practical activities and sense of purpose. These values create an identity amongst the staff - a sense of who 'we' are and who 'they' are - which sometimes creates dilemmas for staff when they consider who 'I' am. And they inform the RTO's goals: the conviction that it is possible to make a difference through learning; the view that learning is one of the important stakes in much wider social struggles; and the assessment that human need and sociality must be constantly affirmed over economic principles and profitability.

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Relationship between course design, delivery & course outcomes

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PROJECT OVERVIEW

This research project sought to improve course and module outcomes through the identification of course and module design and delivery elements considered critical to successful course and module outcomes. This study has examined both course outputs, such as high module pass rates, low module attrition rates and low module fail rates and, to a limited extent, course completion. Course outcomes investigated during the project have included student and staff satisfaction, progression to further study and employment and the achievement of personal objectives.

The project has been a complex and challenging one, involving the collaboration of many people. Completed between January and June 1999, the project involved three phases.

Phase 1 of the project focused on a review of relevant literature. A literature search was completed, using five data bases, a range of web sites and other information sources. Following examination of 65 references, a comprehensive review of the literature was completed. The literature review assisted in clarifying project objectives and has informed subsequent project phases.

Phase 2 involved analysis of statistical data and course and module descriptors. Using a common set of criteria, each of the seven TAFE NSW Educational Services Divisions (ESDs) nominated three to four courses for the project. This resulted in the selection of 25 mainstream courses, covering a diverse range of industries, qualification levels, course types, target groups and delivery modes. The report details the findings from a range of exploratory research activities and presents conclusions relevant to this phase of the project.

Phase 3 of the project focused on qualitative and quantitative research involving key stakeholders and supplementary document analysis. From the 25 courses selected for Phase 2, ESDs identified eight courses for Phase 3. Again, the courses represented a range of vocational and general education areas, qualification levels and target groups. In total, 294 informants contributed to Phase 3 as representatives of the following stakeholder groups: students; teachers; senior faculty staff; and course designers. The report also provides a series of seven course-specific case studies and provides information on the elements of course design and delivery considered critical by each of the stakeholder groups in achieving positive course outcomes. Conclusions relevant to this phase of the research are presented also.

SUMMARY OF FINDINGS

Introduction

The project has demonstrated the complex range of variables, and clusters of variables, which impact on course outcomes and the difficulties of attempting to correlate outcomes with particular variables. The project has focused on identifying those aspects of course design and delivery which stakeholders consider to have an impact on the achievement of positive course and module outputs and outcomes. As noted above, the project involved a diverse array of TAFE NSW courses and this has highlighted the need for design and delivery elements to be addressed within the context of industry requirements, licensing requirements, target group characteristics, qualification levels and course demand.

Findings and conclusions presented in the report are synthesised below. Recommendations, designed to assist TAFE NSW in improving course outputs and course outcomes, are not included in this paper. Three headings have been used to structure this section of the report:

- General observations and conclusions
- Improving course and module design
- Improving course and module design and delivery

General observations and conclusions

This project has involved staff from a wide range of Educational Divisions and Institutes in TAFE NSW. The project has demonstrated the benefits of collaborative research which accesses a broad cross-section of expertise and insights.

While common issues and ways of initiating improvements may be identified, they need to be applied using approaches which address unique combinations of design, delivery and contextual issues. A single course design model or checklist is unlikely to address the challenges faced by TAFE NSW course designers. Significantly, the case studies reveal that TAFE NSW is already applying a range of course design and delivery strategies, in recognition of the range of factors which need to be addressed in particular suites of courses. Other course designers may be informed by these case studies, which overview approaches used to address particular challenges, challenges which remain and highlight future improvements.

The report, also provides insights on some of the difficulties encountered in using TAFE NSW statistical data for research purposes. It reinforces the importance of balancing the use of quantitative data with broader stakeholder consultation and contextual information. This is particularly important in interpreting module and course output data.

Finally, the project demonstrates the difficulty of distinguishing course design from delivery issues, particularly when obtaining input from teachers and students.

Improving course and module design

During this project a list of 19 course and module design elements was developed as a result of an extensive literature review and input from the Reference Group. This project suggests that:

- all of these elements should be considered by course designers, so that successful course and module outputs and outcomes are maximised
- different elements and combinations of elements will be more critical to particular courses or suites of courses, depending on factors such as industry requirements, licensing requirements, characteristics of the target group, level of course demand and qualification level.

More detailed advice relating to specific course and module design elements is provided below.

ACHIEVING COURSE OUTCOMES

All stakeholder groups indicated that the structure and content of the course must enable course outcomes to be achieved. In particular, modules need to form a coherent course, rather than being viewed primarily as a group of discrete modules. Students and teachers also highlighted the importance of continuous improvement processes to obtain feedback from stakeholders on the extent of outcome achievement.

EXIT POINTS, ARTICULATION AND CREDIT TRANSFER

TAFE staff highlighted the need to develop suites of courses, which maximised entry and exit opportunities, rather than single, isolated courses (see, for example, case studies for the Certificate IV in Information Technology and the Diploma in Hospitality Management). TAFE staff and students also sought clear and detailed articulation information in course documents. Significantly, the item on articulation received the highest rating (59.4%) from students who participated in this study. The Tertiary Preparation Certificate (TPC) case study also demonstrates the merits of reviewing non-completions, so that all successful exit pathways are recognised and formalised.

COURSE STRUCTURES

Flexible course structures with a common core and elective strands or modules were favoured, with the exception of Certificate II in National Maritime Operations, where stakeholders felt that the six compulsory modules enabled course outcomes to be met. Course structures should not be too complex, due to difficulties this creates in marketing the course and a need to "case manage" course completions (the Electrical Technology and Electrical Engineering case study).

ALIGNMENT WITH INDUSTRY COMPETENCY STANDARDS AND USE OF NATIONAL MODULES

Students considered the alignment of vocational courses with Industry Competency Standards as critical. Similarly, statistical and document analysis indicates more successful outputs for modules based on Industry Competency Standards and national curriculum modules. In a number of the case studies, however, course designers and teachers identified difficulties in designing and delivering courses, particularly those based on national modules. Most of these difficulties appeared to result from modules having been developed in isolation from other modules and the subsequent impact on course coherence. Suggested improvements included:

- that a single reviewer, or review team, review all modules in a course or suite of courses, so that issues associated with duplication of content and inconsistencies in pre-requisites and co-requisites are resolved
- increased input from teachers and industry practitioners (as opposed to more senior industry representatives) at the design and review stages.

INTEGRATION OF VOCATIONAL AND GENERIC COMPETENCIES IN COURSE DESIGNS

While students, teachers, senior faculty members and curriculum designers generally favoured the integration of vocational and generic competencies in course designs, a number of issues were evident in translating curriculum into delivery. Teachers in some areas also identified a need to ensure that the National Communication module included in the course design is appropriate to the qualification level and relevant to the occupational outcomes the course is designed to meet. Other issues are discussed under course and module delivery.

PROVISION FOR A RANGE OF DELIVERY MODES

TAFE NSW stakeholders regarded provision for a range of delivery modes in course and module documents as essential. While statistical and document analysis indicates that this is occurring, there is a need to ensure that assessment events are relevant to a range of delivery modes. As will be shown below, this study suggests that while provision may be made in course documents for a range of delivery modes, translations into practice was not occurring to the extent sought by students and teachers.

MODULE DURATION

While the findings from statistical and document analysis suggested that shorter module duration may contribute to increased module pass rates, consultation with stakeholders indicates that "shorter is not better", educationally or administratively. TAFE staff generally preferred modules of 36 to 54 hours, to provide a longer period for the development and consolidation of knowledge and skills, prior to summative assessment. In the case of the Certificate III in Tertiary Preparation (TPC), 72 hour modules were considered critical in providing learners with opportunities to develop confidence and skills.

COURSE AND MODULE ASSESSMENT

A need to balance learning and assessment has been highlighted in the research, with stakeholders identifying a need for:

- a limited number of holistic assessment events within and across modules
- closer scrutiny of assessment criteria during module design, to facilitate integrated assessment events
- a focus on assessment advice in module descriptors and/or assessment guides.

Graded assessment: All stakeholder groups favoured the use of graded assessment, to improve student motivation, foster attitudes of excellence and meet industry expectations. In particular, the desirability of graded assessment was highlighted for:

- modules in the final stage of courses
- summative modules which demonstrate the integration of competencies from a number of modules, such as project modules
- other key modules, such as those likely to be used in employee selection processes.

Categories of assessment and maintenance of standards: Analysis if course and module statistics and documents suggests that the use of assessment, requiring a class mark or locally set and marked assessment events, improved module pass rates. While this may be the case, use of these assessment methods has resulted in issues of consistency of standards and equity within and across delivery sites. In some areas, increased use of statewide assessments or item banks was favoured (see, for example the Real Estate, Horse Industry Practices and Electrical Engineering and Electrical Technology case studies). However, this issue and a number of associated issues may be addressed by exploring other approaches. For example, the TPC assessment and verification process enables consistent standards to be addressed while also assisting in addressing professional development needs. development, performance measurement and quality improvement processes.

INTEGRATION OF SUPPORT SYSTEMS INTO THE COURSE DESIGN TO MAXIMISE MODULE AND COURSE COMPLETIONS

All but one of the 25 courses analysed included Tutorial Support in the course structure and 12 included additional support mechanisms, such as Technical Tutorial Support and provision of course co-ordination hours. Similarly, stakeholders involved with courses in Information Technology, Electrical Technology and Tertiary Preparation highlighted the importance of support mechanisms in achieving course outcomes.

Completion of the case studies in also revealed a recurrent need for an initial module or orientation program for learners without recent experience of TAFE, learning, and/or competency based assessment. This need has been addressed through the Professional Development module in the Diploma of Hospitality Management and, to some extent, through Language and Learning Skills A in the TPC course. Local programs, involving delivery sections and counselling units, had been offered at some colleges. This project suggests that there is a widespread need for course designers to address the needs of recent school leavers and mature age learners for an orientation program covering:

- an introduction to the course and course assessment
- learning styles and learning management (learning to learn, time management, study skills, creating study groups and finding study partners)
- access to support services.

Course designers need to assess the needs of their target group and ensure that appropriate support systems are integrated into course designs. This may involve the integration of support modules, or the provision of advice on options which may be implemented by colleges, if required.

EXPOSURE TO WORK AND EMPLOYMENT EXPERIENCES

Findings from this research indicate that vocational courses delivered by TAFE NSW must maximise learner opportunities for relevant exposure to work and employment experiences, through concurrent employment, work placements, work based projects and fieldwork. Where courses do not complement relevant concurrent employment, student motivation, ability to grasp and apply theoretical concepts, satisfaction and employment prospects appear to be enhanced by the provision of work experience and work based projects. Simulations assist in achieving some, but not all, of these outcomes. Significantly, in courses such as the Diploma of Hospitality Management, Certificate IV in Information Technology and Certificate III in Horse Industry Practice, the inclusion of work experience and work projects appears closely linked with maintaining the industry currency of teachers and the quality of partnership arrangements with industry.

COURSE ENTRY AND SELECTION REQUIREMENTS

Clear specification and application of entry requirements, together with selection requirements for high demand courses, were highlighted as significant by TAFE staff. In particular, those associated with courses in Information Technology, Hospitality Management and Electrical Engineering suggested that the selection requirements for those courses contributed to very successful course outcomes. Staff involved with a number of courses, including Hospitality Management and TPC, also highlighted the importance of multiple entry pathways and the value of providing students with advice on bridging courses and other options so that they might achieve the outcomes they sought by the most appropriate pathway.

Course and module delivery elements

The findings of this project are broadly consistent with the findings of previous projects, as stakeholders:

- considered course delivery factors as more critical than course design in the achievement of course outcomes
- rated a larger number of delivery elements as critical and a smaller number as unimportant, than for course design elements
- repeatedly and consistently highlighted the pivotal role of skilful, flexible and dedicated teachers in the achievement of successful course outcomes.

For any course, or suite of courses some delivery elements, or clusters of elements, will be more important than others. Findings relating to particular delivery elements are provided below.

COURSE PROVISION USING A RANGE OF DELIVERY OPTIONS

Students and staff highlighted a need for increased provision of delivery which focused on flexible, learner centred approaches. There is a need for TAFE NSW to identify and resource priority areas for the establishment of mixed mode delivery, targeting areas which will improve student satisfaction, provision of elective modules and course completion. Repeatedly, staff in colleges highlighted the incongruence between the rhetoric to provide flexible, innovative delivery and the limitations and hindrances of TAFE administrative policies and information systems. This project suggests that, in a number of areas where innovative, learner centred practices have been implemented for the benefit of students, staff are actually operating outside, or pushing the limits of TAFE NSW policies and procedures. While staff feel immense satisfaction as a result of customer focused delivery, they also feel vulnerable and frustrated as a result of these inconsistencies. Increased flexibility in delivery would increase learner access to elective modules, which has been a significant issue in a number of customer satisfaction studies and would assist in making mixed mode delivery a mainstream, rather than a peripheral delivery mode.

COURSE DEVELOPMENT, RE-ACCREDITATION AND IMPLEMENTATION PROCESSES

Teachers and senior faculty staff sought improvements in ESD course implementation practices. They highlighted the need for increased consultation during course development and review processes and improved information dissemination on proposed developments. Timeframes for the implementation of new courses were often considered unreasonable. Both senior faculty staff and teachers requested adequate notice, to enable planning and resource allocation for professional development and course implementation. Complete, quality documentation and support resources were also sought prior to implementation.

ACCESS TO QUALITY TEACHING, LEARNING AND ASSESSMENT RESOURCES

Access to resources was rated highly. In a number of case studies staff commented on the apparent tendency for national and state developed module resources to be repetitive and inconsistent, suggesting that individuals or teams had developed resources independently of those developing material for other modules. Some resources are also tailored to particular delivery modes. There is a need to ensure that resource development processes result in user friendly products, relevant to a range of delivery modes. Where appropriate, resources should be provided on disk, to enable local customisation and updating.

INDUSTRY CURRENCY OF TEACHERS

Issues associated with the industry currency of teachers was raised. Informants felt that improved opportunities for return to industry and partnerships with industry would improve course outcomes.

AVAILABILITY OF HUMAN RESOURCE REQUIREMENTS

The importance of technical support staff in achieving successful course outcomes was noted in the Information Technology and Electrical Engineering/Technology case studies, together with the difficulties of recruiting appropriately qualified Information Technology staff. Senior college staff also highlighted the need to ensure that human resource requirements were specified realistically and consistently in course and module descriptors.

INTEGRATED DELIVERY OF VOCATIONAL AND GENERIC COMPETENCIES

The case studies suggest that generic competencies are most successfully integrated when generic modules, such as Communication modules and Management modules, are contextualised and taught as part of an integrated cluster of modules, as students consider the modules more relevant and practical. The findings of this study indicate a need for strategies that encourage vocational teachers to obtain qualifications or recognition enabling them to deliver generic modules and for team based delivery of clusters of modules. This study has also identified a need for customisation of module length for mature age learners and increased mixed mode delivery of National Communication modules, facilitated by more flexible allocation of hours for part-time Communication teachers.

APPLICATION OF QUALITY IMPROVEMENT, BENCHMARKING AND MODERATION PRACTICES FOR COURSE DELIVERY TEAMS

Most of the delivery sites had piloted, and where successful, implemented innovative delivery approaches and several monitored customer satisfaction. In focus group sessions teachers and senior faculty staff raised concerns about the lack of opportunities for networking, benchmarking and moderation. As a result staff frequently expressed concerns about the lack of consistent TAFE-wide course assessment standards. Frequently, students also commented on inconsistent assessment standards for modules delivered to different classes, by different teachers, at single locations. As noted earlier, some staff members favoured a return to statewide assessments, while others favoured the use of other approaches. However, all agreed that there was a need to ensure equity and consistency of outcomes across delivery sites if TAFE NSW is to be viewed as a statewide provider of VET, rather than a loosely affiliated network of delivery sites.

IMPROVING COURSE AND MODULE DOCUMENTATION

Senior faculty staff and curriculum designers considered course and module documentation critical, particularly the supplementary components developed for TAFE NSW. However, teachers frequently considered the descriptors "repetitive", "cumbersome" and "unmarketable". Delivery sections frequently re-wrote and summarised course documentation to make it "user friendly". Of particular concern is that a number of full-time and part-time teachers considered course and module documentation "unimportant" or had no opinion on it at all. Recommendations for improving course and module documentation included:

- a reduction in the duplication of information. When headings in different parts of course and module descriptors are identical, TAFE NSW staff expect the supplementary sections to provide more detailed, insightful information which supports delivery and assessment practices and explains the underpinning course philosophy, rather than repeating information provided in a previous section
- a review of the course and module descriptors to ensure cohesion and consistency and minimal unnecessary overlap in content and assessment events
- increased involvement of practising teachers in review processes
- providing detailed resource schedules in the implementation advice of the course descriptor, especially for courses which are resource intensive and costly to deliver
- increased attention to implementation advice of the module descriptor which provides information on advanced standings and standard exemptions, as poor or incomplete attention to this area results in an increased administrative workload for senior faculty staff. This issue is particularly significant when courses are revised several times in a short period and transition arrangements become complex
- ensuring that the specification of pre-requisites and co-requisites is realistic within the course structure and suggested enrolment options
- ensuring that human resource requirements are realistic and consistent across modules.

Senior faculty staff also suggested that standardised course and module summary information should be developed as part of the implementation package, to minimise the duplication of effort across TAFE NSW and assist with course marketing.

Senior faculty staff would also value the provision of timely summary information which highlights course and module changes and overviews the nature of those changes.

What skill? Whose knowing? Futures for CBT

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ABSTRACT

It has become commonplace to argue that current trends in the economy, most particularly the global economy, have placed greater emphasis on the needs of the workforce to be able to change their skills. While some work now appears to be quite knowledge-intensive, the skill demands of other work may be in decline. This paper reports on a national evaluation study of competency-based training which was conducted in enterprises in 1998. Findings from this study suggest that distinctively different discourses of competency are developing among different industry sectors and between different workforce groups. Thus, the competency required of operational, technical and trade staff is commonly conceived as 'specific skills for specific jobs'. And, the competency required of managerial and professional staff is commonly conceived more broadly. Various consequences of these different discourses of competence for the contemporary workforce will be explored and some implications for VET policy and practice drawn. Overall, the paper will address the following three questions: (i) what role is CBT playing in skilling the Australian workforce?; (ii) what contribution is it making to the changing character of work, including the creation of the 'knowing worker'; (iii) what contribution is it making to the 'high road' for reform — the formation of a high-skill workforce where opportunities for all to become more knowledgeable are provided?

INTRODUCTION

It has become commonplace to argue that current trends in the economy, most particularly the global economy, have placed greater emphasis on the needs of the workforce to be able to change their skills. Vocational educators and trainers who deliver programs in workplaces directly face the challenges of changing structures of work and economy in what has variously been called post-industrialism, post-Fordism, informational capitalism, fast capitalism, the learning economy, and the knowledge economy, among others. Post-Fordism, for example, is a term used to describe changes which are thought to be occurring currently in the character of industrial organisations. These changes include the move to flexible production systems and flatter organisational structures. Set within global markets, post-Fordist workplaces are claimed to require a workforce that is able to perform many different tasks or is multi-skilled. Workers are constituted as capable of taking shared responsibility for decisions and adept at finding their own solutions to problems. Post-Fordist workplaces strive to continually search for improvement, through approaches such as Quality Assurance and Total Quality Management.

Changes in products, services and work processes are claimed to require increased flexibility with regard to the organisation of work, working practice, working knowledge and working identity. The 'new model worker' (Flecker and Hofbauer, 1998) is taken to be more a 'knower' than 'doer', or, better perhaps, a knower-doer: broadly informed and skilled such that the increasingly varying tasks of the 'flexible firm' are fulfilled. The new model manager is taken to be more a coach than a cop: moving from command and control methods of management toward a greater concern with communication and employee involvement. According to Flecker and Hofbauer (1998, 105), the emergence of these new images reflects two interrelated tendencies: 'first, changing skill needs and attitudinal requirements, encapsulated in the term 'intrapreneur', and, second, the increased dependence of the labour process on workers' active and creative contributions'.

The purpose of this paper is to explore the contribution that competency-based training (CBT) has made to these changing needs and requirements. CBT is informed by the view that global economic and technological change require workers to exhibit a broader range of skills at work, specifically, flexible and adaptable skills. Recent research in Australian enterprises 'suggests a shift in the nature of skills requirements at the enterprise level away from narrow technical skills and towards a new training paradigm that emphasises the need for developing broad sets of generic skills in the workforce in order to increase adaptability (Smith 1999, 115). Using empirical material gathered in the course of a national research project on CBT, we argue that CBT as constituted currently makes a relatively minor contribution to the development of broad sets of generic skills. If a new 'paradigm' of training is emerging in enterprises, it is most apparent at 'higher' levels of the work process, and supported by training approaches which are supplementary to, or other than, CBT.

RESEARCH METHODS

The study on which this paper draws examined the contribution that CBT has made to outcomes in vocational education and training (VET), most particularly the extent to which it has met the requirements of various stakeholders and contributed to the development of more flexible and adaptable skills at work (Mulcahy & James 1999). One hundred and ninety-five (195) company training managers (or equivalent personnel) were each interviewed by telephone for approximately twenty minutes. The companies contacted were located in both metropolitan and regional areas of Australia, in seven States and Territories (New South Wales, Northern Territory, Queensland, South Australia, Tasmania, Victoria and Western Australia) and were selected largely from the four major industry sectors of Manufacturing, Services, Construction and Agriculture, Forestry and Fishing. Companies varied according to size (small — 1-19 employees; medium — 20-99 employees; large — over 99 employees) and a balanced sampling by size of establishment, location, State/Territory and industry was attempted and, for the most part, achieved.

Eight (8) intensive case studies of competency-based VET programs throughout Australia were also conducted. The selection of companies for these case studies was made according to the same criteria used above. Thus, case studies were undertaken in different industry sectors — Manufacturing (2), Services (2), Construction (2) and Agriculture, Forestry and Fishing (2). The case study companies were of various size (small, medium, large) and located in metropolitan and regional areas of Australia's States and Territories. The case studies involved participant observation of training programs and in-depth, semi-structured interviews (49) with a range of individuals with an investment in training: company manager, training manager, supervisor, trainer(s) and trainees.

COMPETENCY-BASED TRAINING: WHAT SKILL? WHOSE KNOWING?

In researching the impact of new management practices on training in Australian enterprises, Smith (1999, 115) notes that:

> The focus of nationally accredited training has been on preparing people for specific jobs and occupations based on the competency standards developed on occupational lines. However, the competency standards focus on the technical skills required in a job or occupation. They rarely cover the broader, behavioural skills that employers seem to be seeking.

Griffin (1998, 8-9) provides a complementary view:

> Without exception, the industry based training packages describe competencies in terms of task performance alone and this has led to competency being equated with checklists of tasks which in turn reinforce the status quo of industry practices.

The data on which this paper draws broadly support the above, competence being commonly conceived by interviewees as 'actually go(ing) and do(ing) it' — 'able to do the job that is described'. Thus, comments such as the following were quite common:

> To be competent means that they can do all the tasks that are on their job sheets without the need of constant supervision and correction (*Company Manager, small wholesale tree nursery*).
>
> (Being competent means) being able to do the job properly, safely and productively. So we are getting our production, they are doing the job safely, and properly, the way it should be done (*Trainer, large timber processing plant*).

> A competency is a task that you have to do to a standard. I demonstrate exactly what is a competency and then show them exactly what it is that they have to achieve to be competent (*On-the-job Trainer, community housing construction project*).

> [i]f the supervisor asked me to do some work down there, whether it is pruning or fertilising or using any of the chemicals, I should be able to go up and do it, without buggering the job up, so to speak (*Trainee, small wholesale tree nursery*)

CBT was described by the majority of training managers, with approval, as a 'practical', 'hands-on do programme', in which 'their (workers') performance on the job says it all'. Commonly conceived as 'specific skills for specific jobs', it is training that 'fit(s) directly into known skill sets' and is 'based on standard levels of competency in a particular field'. 'It's not book learning' or 'giving facts, information and technical knowledge'. In essence, it is training that meets job demands.

A 'practical' or performance-based discourse of CBT dominates in enterprises, emphasising the importance of the 'performativity principle' (Garrick 1998, 101, from Lyotard 1984, 44), which holds that the only really useful and valid knowledge is that which is instrumental, or operational, and is demonstrated in optimally efficient and effective performance. Thus what counts as occupational competence in industry and enterprises is the ability to perform at a specified standard: 'really know(ing) how to do it'. The locus of competency (locus of control) is 'outside' everyday work practice and practitioners: 'What we do is round off their knowledge and increase their competency base so that they can achieve ... as per the training package'. It resides in the formal skills requirements of specific occupations and jobs. Trainees tend not to author or construct these requirements, a curious situation given the emerging emphasis upon the individual in enterprise training (Smith 1999, 114). Ultimately, it is improved performance through proficiency in specific skills that employers seem to want from CBT. The focus on specific skills would seem to sit oddly with other broad behavioural requirements like taking responsibility and showing initiative which employers also appear to want. Our data suggest that these requirements are met in a variety of ways, including supplementing CBT with other training or exploiting the developmental potential in new organisational practices (eg. teamwork, project work).

OTHER(ED) COMPETENCE: '(I) AM LOOKING TO PUT BRAIN FOOD IN THERE'

As illustrated above, the performative discourse of CBT privileges technical-rational, operational knowledge, which is tangible and calculable. Some training managers were clearly concerned about this trend. Typical comments were as follows: '(CBT is) useful for skills development but not always effective when attitudinal/behavioural change is required, for example, a cultural shift'. '(With CBT) there is only short contact' and little 'support for people working through these changes'. 'Some competencies in Human Services are difficult to quantify (for example, attitudes, ethics, values) so (CBT) gets put in the "too hard basket"'. 'To be a nurse you have to like people and this is something that you can't measure'. 'Groups of competencies need to be linked effectively to bring about change. There is often a tendency to look at competencies as individual actions'.

The concerns expressed above emerged particularly from occupational areas such as Community Services and Health, Municipal Services, Education and Training, and Architecture, all of which espouse a 'professional' model of skill that includes problem-solving, reasoning and exercising judgement in the context of broad requirements (Bailey & Merritt 1995). In Health Services, for example, it was said that training is to produce 'assertive, informed carers' and, in Community Services, that philosophical standards had been developed 'to ensure that the moral, the ethical and the cultural are not forgotten' — 'to put back the bits that were missing'. Training managers from these areas were also concerned about the personal, as well as the professional, development of their staff that 'reflects in how everyone approaches (their) work'.

Such concerns were not exclusive to the above areas. In the logging industry, a training manager commented: 'CBT training focuses on machines and production to the detriment of a more comprehensive environmental care training'. Indeed, a number of training managers in Manufacturing companies expressed concern that leadership training, personal development and the 'soft', people skills were considered unimportant compared with technical proficiency. More extended comments reveal concern about the potential of CBT to develop social and cognitive skills:

> You can make robots of people with CBT. (I) am looking to put brain food in there so that people can manage their work more effectively. Brain food might include teamwork, conflict resolution skills and so on. ... This company is moving towards a philosophy of Human Resource Development, that is, the overall training and development is tied into the strategic development of the company (*Training Manager, large light Manufacturing company*).
>
> I have some concern with the concept of competencies in terms of training people in attitudinal or behavioural type areas. ... I believe that the competency stuff works very well with skills based and that's why it works with field staff and manufacturing and so on and so forth but when you get into areas of things like communication, inter-personal stuff, diversity, I think that you need groups of competencies or another approach to complement it (*Human Resources Manager, large local government organisation*).
>
> I think somewhere within competency standards and competency based training you have to get away from: "This is the way you train somebody, this is the way you da, da, da, da, da". And have this dirty great big section on human relations dealing face to face with people and how you solve problems talking to people. ... We have to deal with people skills, social skills (*Supervisor, large timber processing plant*).

As might be anticipated, it is socio-cultural elements that present the greatest problem in using CBT. The contesting character of technical-functional elements and socio-cultural elements is clear. At the large local government organisation cited above, this contesting terrain is managed by means of running parallel programmes:

> (The) move to team development has come parallel with competency-based training and they work very nicely together. ... You don't do one or the other, you need a nice balance of both sorts of things ... . So I'd say that we're aiming to complement skills development with an actual cultural development and that takes time.

Similarly, on a farming property, psychological and social aspects of competence development are managed by means of working 'home-based training' (informal learning by children on the farm, 'from when they can reach the foot pedals of the vehicle') alongside competency-based training:

> CBT supplements home-based training but is not a substitute (for it). ... CBT does not provide trainees with the confidence of those who learn via home-based training. ... a family member often knows how it (farm machinery) works before they are old enough to drive it and so finds developing the machinery skills not overpowering, not near as frightening.

Again, on another farm, tacit knowledge and experiential learning appear to create a problem for competency-based training:

> A lot of knowledge (for example, workers' use of initiative and problem-solving skills) isn't competency-based, and so you can't assess on a competency level. ... Sometimes it's not what they know. You want them to be able to sort out the situation for themselves and this can't be assessed through CBT.

The success of CBT relies, on brokering the boundaries between 'objective' and 'subjective' dimensions of development, transferring some element of one dimension into another (Wenger 1998, 109). Overall, the data show that CBT is incomplete and inconsistent: it depends on things (eg. experience, informal learning, situated action, 'put(ting) back the bits that (are) missing') which it does not itself contain.

TWO-TIERED TRAINING PROVISION?: 'IT WORKS WELL IN THE MORE BASIC SKILL LEVELS'

In the views of most training managers, CBT lends itself well to developing basic and specific skills. It is considered particularly effective in relation to operator, trade and traineeship training: 'It works well in the more basic skill levels, but the higher up the tree you get the less CBT training is available, but it is harder for it to be specific'. By all accounts, the demand for skill changes significantly 'the higher up the tree you get'. Concerns were expressed that CBT may be imposed at higher, as well as basic, levels and undermine professional work. A cautionary note was struck by a Retail training manager who commented in relation to management training: 'But national standards can't pigeon-hole everyone ... it can reduce innovation. CBT can't be used for everything. We need to be careful how it's used'. Similarly, a Welfare Provider questioned the wisdom of developing competencies for social work.

The focus 'higher up the tree' is on 'generic competencies' in self-management, problem identifying, problem-solving, decision-making, strategic thinking, risk-taking, innovation and leadership: 'We are actually inserting some generic competencies in all job descriptions and particularly at senior levels we have a major thrust on leadership competencies'. While management training is provided through the VET system's Front-line Management Initiative, and senior managers undertake Australian Institute of Management courses, one training manager complained: 'These high powered managers, they don't believe they need training; they believe that they don't have time to invest in personal development — perhaps because they need it most'. Post-graduate courses for management (not CBT) were mentioned in many companies, but more often it seemed that: 'Senior management training is limited, insignificant', or 'sporadic and not well-planned'. 'All we do is brush them up', said one interviewee. Yet, in relation to CBT: 'How can you measure something like the ability to develop policies?'

As discussed briefly above, concerns about CBT emerged particularly from occupational areas such as Community Services and Health, Municipal Services, Education and Training, and Architecture, all of which espouse a model of skill in line with the professional view of work which is less structured and more autonomous (Bailey & Merritt 1995, 30). This view (discourse, ideology) plays out in definitions of competency which are broader than 'specific skills for specific jobs'. Thus, in a large local government organisation, competency is conceived in relation to two things: (i) the requirements of jobs:

> I would have a look at their job description and hopefully there would be an indicator there of the sorts of competencies required for that particular job. So it's in relation to what they actually perform (*Human Resources Manager*).

and (ii) the requirements of individuals:

> We are moving towards competency-based job and person specifications so once they're established, I think that will lead us directly into competency-based training (*Trainer*).
>
> A competent worker might be the person who fits the necessity of the job if you like. The person who has all of the skills, social and technical skills, leadership skills, necessary to fit the bill for that particular job (*Acting Chief Executive Officer*).

Unlike the bulk of the situations described above where competency is located outside individuals ('they can do all the tasks that are on their job sheets'), here, individuals, or, more accurately, attributes of individuals — 'the skills that you can bring to the job' — are part of the competence equation. In a 'professional' discourse of competency, most particularly the discourses of human resource management and development, improving performance is a matter of attending to job demands, the organisational environment, and attributes of individuals:

> So we decided that we needed to have a major cultural change in the organisation to create a new culture, a competitive culture, customer focused culture, and bring up the level of professionalism and so on in the organisation (*Acting CEO, large local government organisation*).
>
> [P]articularly at senior levels we have a major thrust on leadership competencies and we're in the process of developing all of that. We've got pretty much a draft competency list for that, that fits into our performance management system but the leadership competencies will actually use, will actually test individuals coming into the organisation on those sorts of competencies. Because that's where we see our future is — attracting highly qualified professional people with that ability to lead (*Human Resources Manager, ibid*).

Less emphasis is placed on specific, observable outcomes that can be reproduced through training and more on broad attributes of the individual that can be 'tied into the strategic development of the company'. Overall, this development is a matter of bringing various strategies together — competency identification, performance management, recruitment, selection, assessment ('testing') — and promoting the importance of competencies that go beyond seemingly straightforward jobs. These more complex competencies (self-management, problem-solving, decision-making and so on) are difficult to define simply as performances to a standard. They require the input (attributes) of 'highly qualified professional people with that ability to lead'.

BEYOND TRAINING AND DEVELOPMENT: FUTURES FOR CBT

Germany is a country with a reputation for high average wage rates and quality training, leading some commentators to characterise it as 'having a high skills-high wage paradigm' (Attwell & Rauner 1999, 228). Unlike Australia and the UK (Goodwin et al. 1999), it might be thought to have taken the 'high road' for training and human resource development. Broadly, this road gives priority to developing knowledgeability in work, at all levels of the work process. It also tries to balance economic and social goals and achieve policy coherence across a wide range of fronts — the labour market, social welfare, industrial relations and education and training. Thus, the models of competency training that tend to be preferred by countries travelling this road emphasise outcomes that are broad and diverse.

In the data presented above, two broad models of VET are in evidence: a *training* model which emphasises competence in specific practices ('specific skills for specific jobs') and a *development* model which emphasises competence in generic practices ('things like communication, inter-personal stuff, diversity'). While these emphases differ considerably, both models are directed at achieving improved performance where performance is defined ultimately as economic performance:

> (Being competent means) being able to do the job properly, safely and productively. So we are getting our production, they are doing the job safely, and properly, the way it should be done (*Trainer, large timber processing plant*).
>
> We want the staff to be successful. I mean we've got a vision that when contestability comes we can actually be so skilled up and knowledgeable and so on that we can in fact take on work from surrounding councils and make a profit for the ratepayers of the city ... and reduce the reliance on rates. So we've got a much further vision than just surviving (*Acting CEO, large local government organisation*).

Neither model is directed at knowledgeability in work where knowledgeability is a means to ends other than economic improvement. Indeed, with the 'natural evolution' of a training model of VET, whose focus is jobs, into a (human resource) development model, whose (apparent) focus is individuals, this emphasis may increase:

> The person-based structure of competency modelling is a natural evolution from the current job-based structure for competency modelling. Whole firm competencies will be structured to leverage organisational capability from individual career behaviours. The leveraging of an individual's motivation by appealing to his or her self-interest for continued employment and employability will dovetail with organisational needs to use human assets in settings that recognise the potential contribution people can make to improved competitiveness through the application of the unique human ability to be creative (Rothwell & Lindholm 1999, 101).

CBT is a highly contested terrain (James 2000; Mulcahy, 2000). Discourses other than training and development discourses wash through the empirical data, for example, critical, educational discourses: 'My definition of competency goes something like the way in which we can effect through the training programme a group of individuals who can be pro-active within their company and therefore can achieve a better work-place for themselves ... for the benefit of the company and themselves'. The most important consideration is not to close the competency account but rather create conditions of possibility where multiple competences (social, technical, economic, critical ...) are tolerated and possible and preferred futures are kept in view. New conceptions of competence need to be crafted. But which ones and by whom?

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Management education: a case study

Student perceptions of the role of the employer in formal off-the-job education

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BACKGROUND

The relentless forces propelling Australia into the 'globalised' world have placed pressure upon organisations to ensure the continued development of the skill base of their employees. This has been fuelled by the rapid pace of technological change and the imperative for microeconomic reform. Particular emphasis in policy making (Dawkins, 1987) has been placed on the need for a flexible workforce which is capable of adapting very quickly to changing market conditions and thus to capitalise on opportunity as it presents itself.

The 'West Report' (1998) acknowledges that education has special cultural and social dimensions that contribute to an informed citizenry, the transmission of knowledge and the quality of life in the community, he also sees it as an economic activity with 'considerable potential to create productive jobs and contribute significantly to national wealth... as a competitive industry and indirectly through the learning and skills it creates'

The company which is the subject of this case study, believes that allowing people to reach their full potential through training and development benefits the company and the growth of the business. (Demonstrating Best Practice in VET- The company Experience 1996) It is believed that morale improves when employees understand that their welfare and development is important to the Company This investigation focuses on the experience of employees undertaking further study in the form of formal off the job education.

A belief in the intrinsic societal, organisational and personal gains from education have their basis in Human Capital theory. In his article Capital Concept Applied to Man (1935) J.R. Walsh compared the earnings of educated individuals with the costs of their training and found that investment in education more than paid for itself. (Marginson, 1993) As developed by the Chicago School, human capital theory had two core hypotheses. First, education and training increase individual cognitive capacity and therefore productivity. Second, increased productivity leads to increased individual earnings and these earnings are a measure of the value of the human capital.

Human capital theory informed much of the education policy of the latter part of this century. In particular, in the free market environment of recent years, the emphasis has been on private rather than public investment, along the lines of the theory expounded by Milton Friedman (1945) Karmel (1962):

> Education has directly beneficial effects on production and the rate of economic growth, so that there is a sense in which it pays for itself by future production, just as any investment in capital equipment does. Moreover, these economic benefits tend to be underestimated; consequently investment in education tends to be too low, in the sense that additional expenditure can be expected to yield handsome dividends Karmel (1962:19) quoted in Marginson.

The policy coupling of human capital theory with market reforms became dominant in Australia by the end of the eighties. In his Green Paper on higher education the then Minister for Employment, Education and Training, Mr John Dawkins said that:

> An expansion of the higher education system is important for several reasons. A better-educated and more highly skilled population will be able to deal more effectively with change. A major function of education is, after all, to increase individual's capacity to learn, to provide them with a framework with which to analyse problems and to increase their capacity to deal with new information. At the same time education facilitates adaptability, making it easier fro individuals to learn skills related to their intended profession and improve their ability to learn while pursuing that profession. (Quoted in Marginson)

> Adaptation to technological change is also facilitated by a better skilled and educated workforce.
> (Dawkins 1987:1)

There are many factors to be considered in the provision of such training and education at the enterprise level, and in fact many enterprises are now valuing training for more than its ability to develop skills but also to assist with workplace change and the development of employees skills in decision making, teamwork and continuous improvement. (Billett (1994a)) Wolf (1996) suggests from research amongst OECD countries that companies are prepared to pay for the development of specific skills and some generic skills that will lead toward achieving strategic goals

THE STUDY: RATIONALE

The rationale for undertaking this study centres on an organisation's imperative to maximise returns on the education and training dollar. The company has embraced the 'learning culture' and emphasises its importance in company documentation. However the company has seen major change and the education and training sectors have not been quarantined from this. Individual students within the organisation have experienced varying degrees of success in their educational endeavours and this is of concern to the company. It is hoped that by investigating the factors which impact on student success rates, the company will be able to ensure that their efforts in regard to training and education give the best possible chances of success so that the company may remain competitive within the global environment.

Given the acceptance of the benefits of enterprise based education, it would be remiss if organisations such as The company did not seek to maximise the learning outcomes for their staff. This study will inform future policy direction and perhaps point to some changes which will facilitate such success for students. Previous studies have identified a number of organisational constraints in the provision of effective management education. These include factors such as poor facilitation by line managers or trainers, lack of reflection on mistakes, inadequate space for personal transition, practical difficulties in remedying unbalanced learning styles, organisational defences and skilled incompetence, reward management structures, organisational culture and climates of distrust, uncertainty and insecurity. (Woodall, 1998). Woodall also states that '...much care is needed to ensure that the organisation's capacity to support learning is adequate.' (1998, p 157) In part this study seeks to clarify the pertinent issues for the organisation in question, so the output per training and education dollar is maximised.

Inevitably individual students have experienced varying levels of success in this endeavour. Some have successfully completed, some are yet to complete and some have 'dropped out' of the course. This study seeks to isolate the factors, both individual and organisational, which influence student 'success' from the perspective of present and past students and present and past employee development managers. In so doing it will provide information from which modifications or adaptations to current practice may be recommended. It will involve a situation analysis of current and past experiences of these groups of employees and then, using data gathered from interviews and focus groups it will suggest modifications to existing practice in order to better achieve company goals.

The company has in 1999 undergone a significant restructure with the resultant losses of jobs and inevitable uncertainty and fear about the future. It is in this context that this study is undertaken. No cost-benefit analysis has been undertaken to attempt to quantify the contribution of education and training to the enterprise goals and to its profits. However the Company regularly seeks and obtains feedback from the learning that occurs on site.

METHODOLOGY

Focus groups and individual interviews were conducted on site. The respondents were encouraged to narrate their experiences of a specific course in off the job education and training. The interviews were taped after the subject gave their express permission. The interview format was semi structured to enable the subject to narrate their experiences with as little intervention from the researcher as possible. The study used a method of non-probability sampling. Subjects were chosen using a purposive sampling technique which is defined as, the "deliberate choice of subjects relevant to topic." (Sarantakos, S, 1987, p55)

The study used the interview process as it held significant advantages over other methods of data collection for the purpose of this study. As Sarantakos (1987, p59) states the interview process is flexible; has a high response rate; is easily administered; provides an opportunity to observe normal behaviour; and an opportunity to record spontaneous answers. There are some disadvantages associated with this method since it is costly, inconvenient and may suffer from interviewer bias. In addition it is less anonymous and is less suitable for sensitive issues.

RESULTS AND INTERPRETATION

An analysis of the data collected at interview yielded three main categories of factors which impacted upon student performance in the course. These were matters of organisational policy, matters of the perceived attitude of management and educational considerations. This paper will focus on the role of management and the perceived policy of the company in aiding or hindering a student's learning experience. In summary, this section will address the following aspects of the situation at the company:

- The question as to whether a true 'learning culture' exists
- The perception of decreased commitment to education and training
- The role of line managers
- The importance of a mentor
- The practical benefits for the company.

THE QUESTION AS TO WHETHER A TRUE 'LEARNING CULTURE' EXISTS

The company sees itself as a possessing a 'learning culture'. A learning culture is defined as 'an organisation which facilitates the learning of all its members and continuously transforms itself' (Pedler et al 1991).

A learning organisation according to Woodall & Winstanley (1998) is one which has a climate in which individual members are encouraged to learn and develop to their full potential. It also extends this learning culture to include customers, suppliers and other significant stakeholders. In addition, human resource development strategy is central to business policy and there is a continuous process of organisational transformation.

As to whether the Company does in fact possess such a culture, there is some dissent. Some respondents see the situation as one where learning is accepted and believe that this is only one step towards the development of a culture of learning. The company claims to both encourage its employees and provide opportunities for them to undertake training appropriate to their identified career pathways.

THE PERCEPTION OF DECREASED COMMITMENT TO EDUCATION AND TRAINING

There was a general perception evidenced in all respondents' interviews, that there has been deterioration in the company's commitment to education and training at the staff level. Some respondents viewed this as particularly detrimental.

> They've really tried to choke training out. They see that as a cost. ...From where I am that will be extremely detrimental to this business over time. We won't be breeding healthy people and maturing people over time. We'll be relying on imports entirely rather than growing people from within. (Respondent A, Dec. 1999)
>
> Knowing what it costs to employ people, it's important to retain people over time; grow them. The cost of people leaving is very high.... It does disappoint me that they've changed.... The last 12 months the business has taken a huge downward slide. (Respondent A, Dec. 1999)

Particular instances cited include the change in the fee-paying arrangements, the level of encouragement for management education, and the resourcing of the training section. The payment of fees was unanimously seen as sending a very positive message to students and prospective students with regard to the level of support forthcoming from the company.

All respondents reported that the company had met all their costs and this was viewed very positively, not only in that it relieved a significant financial burden, but also and perhaps more powerfully, that it signalled a high degree of company support for the process of individual growth through education. Respondents reported that this 'signal of support' added to their motivation and determination to succeed and more specifically, to their willingness to ensure that assignments were conducted with as direct as possible 'spin off' to the business. There was one dissenting view expressed in terms that although the subject found the payment appropriate in their particular situation, she believed that the indiscriminate provision of such financial assistance may have encouraged some employees to commit to their studies less than would have otherwise been the case. These students dropped out and she believed that there should have been some form of compensation to the company for this.

It was seen that the emphasis has shifted so that the company is now fully focussed on training for factory workers, and whilst all respondents saw this type of training as necessary, they expressed disappointment that this was occurring to the detriment of management training and education.

> (There's) not a lot of promotion of (further education) at staff level. You hear a lot about shop floor or operator training... but once you get to that other level its not promoted in a big way at all.... I don't think people are encouraged to develop themselves. (Respondent D, Dec. 1999)
>
> They haven't (promoted) us (management) to add wisdom and knowledge back into the business." (Respondent A, Dec. 1999)

THE ROLE OF LINE MANAGERS

Respondents all viewed the role of their individual line managers as being crucial to their experience of the course. Their comments ranged from the negative to the very positive. "I've had no pat on the back." And "I would have liked more support from my own manager." "...I've had no congratulations or anything like that" (Respondent D) to "(My manager) ... was one of the ... driving forces for me to do the course."

> "My manager was no worries at all. I was pretty lucky there." (Respondent J, Dec. 1999)

There were issues surrounding the role of managers in motivating employees which also need to be further investigated.

THE PRACTICAL BENEFITS FOR THE COMPANY

Respondents with one exception reported that they believed the company had benefited in very practical ways from the studies undertaken These respondents were able to cite practical examples of situations in which a solution to a work problem was found using the knowledge and skills gained in the course undertaken. In addition, it was a commonly held perception that their depth of knowledge, ability to communicate cross functionally and to approach issues with a strategic focus had improved.

> My input within my department is greater because I have a better understanding about how everything works. I have more understanding about the big picture. I question things that I might not have questioned before. I seek out better ways. I am more open minded to improvement. I do a lot more suggesting. (Respondent C, Dec. 1999)
>
> Every time I had an assignment to do I tried to relate it on a real life problem... and make use of the techniques in a structured way and apply the learnings from that particular subject. (Respondent B, Dec. 1999)

THE IMPORTANCE OF A MENTOR

Analysis of the respondents' interviews also revealed a common perception of the role of a designated mentor. This was seen as important for two reasons: firstly as the existence of such a mentor signalled the company's support and commitment and secondly, because the mentor was able to provide practical assistance to students. This was a particular issue for those students who had no previous tertiary education.

Respondents all expressed the importance of a designated mentor to their study's success. The role of mentor was seen in two different ways. Firstly, respondents referred to academic support from within the company. This had been provided in the early days of the course in the form of support with academic requirements, proof reading of assignments, liaising with the University provider, assistance with references, etc. All respondents who were studying at this time also referred to the fact that when this person left the company; his role was never taken on by another.

> We used to have a chap here... and he was very good. K seemed to have the freedom to add that air of professionalism to your training (and) that's unfortunately gone as well. There's been a lot of pressure put on R to perform his function but he doesn't have the freedom of time to spend with people who are doing these courses. (Respondent B, Dec. 1999)

This was seen, particularly by those with no previous university study, as being most detrimental, and moreover, as a signal of a change in the company's commitment to their study. Some respondents were very critical of this change, citing 'false advertising' of the course. "We were told that we would have a mentor for every subject.... We didn't ever get that."..."It wasn't what was advertised." The other respect in which mentors were mentioned was in terms of seeking assistance from 'experts' from within the company to assist with particular assignments. All respondents were very positive about their colleague's willingness to assist in their particular areas of expertise. All respondents expressed satisfaction with this aspect of the company's support.

CONCLUSION

This paper has highlighted some of the factors that impact upon students' experiences in off the job training. Whilst the company has maintained quite a high profile in the area of training and the official company policy is one which encourages training and education, it seems that the perceptions of employees do not totally match with the company rhetoric. This is problematic in that students have not felt adequately supported and encouraged by the company. Given that the company hopes for the benefits of education and training to flow on through the business, it would seem appropriate to act to ensure maximum returns on their educational investment. To this end, further work needs to be done, particularly in the form of a cost-benefit analysis. Further research might also focus on the experiences and perceptions of students who did not successfully complete the course.

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Strategic alliances and the new world of work

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ABSTRACT

There are dramatic changes occurring to the nature of work as we know it (ACIRRT 1991; De Ruyter 1997; Valmai 1998; Waterhouse, 1998). Firms are becoming increasingly reliant on the outsourcing of labour functions in an attempt to more effectively manage supply and costs of labour, whilst focussing on their own "core" activities. These changes have resulted in substantial changes to the Australian workforce. For example, the conventional view of work in the form of a permanent full-time job is now out of date. Downsizing, outsourcing, and contracting-out are leading to situations where more and more people are responsible for finding their own work, not in stable organisations but, through temporary working arrangements, such as that found in contracting-out. Where individual contractors work with other contractors to form strategic alliances, the additional skills of working collaboratively are just as important as the specialist skills of the individual contractors. This paper will outline the literature and methodology for the NREC funded project 'Strategic Alliances and the New World of Work'. The aim of the research is to investigate this emerging group of the "new" workforce, to better understand: their skill requirements; where they acquire the skills to operate effectively to manage their own work and to work with others; the degree to which the existing VET structures are meeting the needs of the new workforce; and, how the VET system can be tailored to meet their needs.

The arrangements under which many people work are undergoing radical transformation. Indeed, it is contended that the conventional view of work – in the form of a permanent full-time job within a formalised work organisation -- is no longer relevant for many working people (Curtain 1996). More and more people are responsible for finding their own work, not in stable organisations but through temporary and short-term working arrangements (ACIRRT 1998; VandenHeuvel & Wooden 1999). Sometimes these new forms of working arrangements can involve either working alone as an independent contractor, and/or joining up with others in what can be called 'loosely coupled strategic alliances' (Owen & Bound 1998). These alliances are usually short-term arrangements and the participants in the alliance may (or may not) be formally recognisable as small businesses. We have called these workers, externalised contingent workers: external because they are outside the organisation that is utilising their services and contingent because they are not permanent, rather their relationship with the organisation is unpredictable. We have defined external contingent workers from the perspective of these workers. That is, as those who are responsible for identifying their next source of income and provide goods and/or services for a specified period of time.

Little is known about the characteristics of an externalised contingent workforce or the elements that enable people to work successfully and enjoy a relatively stable income. What is it like to work with others in securing short-term externalised contracts of goods or service in such a way as to enjoy a continuity of working life? What tensions arise for externalised contingent workers working alongside relatively permanent employees? What attributes are needed to successfully operate in these turbulent conditions? And how do vocational and education and training systems prepare (and support) people to operate within these new working arrangements? It is contended that the research conducted to date sheds little light on these important questions. Given the growth in the externalised contingent workforce, this research is significant.

Our research will investigate the knowledge required to operate effectively when workers are responsible for their own work, work externally to contracting organisations and in collaboration with others. Knowledge is here defined broadly to mean skills, understandings, attitudes and values needed to work successfully. The following research questions guide the study.

1. What knowledge do people need to operate effectively in these new working environments?
2. How do they get this new knowledge and how do they maintain the existing skills of their occupation?
3. Where do they get the knowledge needed to operate successfully within loosely coupled strategic alliances?

4. What kind of VET structure/arrangements would best support people working in these environments?

This paper will explore what is known and develop some tentative indicators of knowledge externalised contingent workers require.

THE CHANGING SHAPE OF WORK ENVIRONMENTS

The increasing trend for organisations to outsource work and to use contingent workers (whether external or internal) is explained in the literature as an answer to the search for organisational responsiveness and flexibility. Globalisation (the organisation of production and its related activities organised on a global scale Castells 1997), rapid changes in information technology and subsequent changes in consumer demand, have led to a greater demand for organisational 'responsiveness' (Ford 1990). These changes have led to "the intensification of competition, particularly international competition; changes in the demand for goods and services; and the general increase in uncertainty and in the pace of change in technology, production processes and markets" (Bailey 1990, p.19). In this context, many organisations engage in restructuring work to create more flexible production systems in order to cope with this changing external environment. Thus there has been a shift from work organisations designed for mass production to those designed for "flexible specialisation" that is, responding to niche markets, adapting and changing quickly to meet consumer demand.

Two types of flexibility are commonly referred to. The first refers to "functional" flexibility and is based on human resource management (HRM) strategies to increase involvement of workers and, so increase flexibility of production. Functional flexibility involves work innovations "premised on securing the deeper engagement of core workers, on continually training them, and on exploiting their accumulated knowledge and experience" (Smith 1997 p.316). The second form of flexibility Smith (1997) calls 'numerical flexibility'. It is aimed at increasing flexibility of work organisation by downsizing the workforce to a core business and increasing the number of workers that are peripheral to the organisation. The HRM strategies utilised here enable employers to expand and contract the size of the workforce to accommodate fluctuations in demand. Numerical flexibility signals the ascent of 'contingent' jobs and the 'decline of the permanent employment model' (Smith 1997, p.326). Organisations are downsized and non-core activities are undertaken by a peripheral workforce that is either employed utilising internal HRM mechanisms (e.g., part-time, temporary and casual work) or outsourced and therefore external to the organisation.

What is outsourcing/contracting-out?

The terms 'outsourcing' and 'contracting out' are used interchangeably in the literature and refer to the business practice of choosing to have goods or services provided externally rather than produced in-house (VandenHeuvel & Wooden 1999, p.7). According to VandenHeuvel and Wooden (1999, p.7) 'in common law the key difference between contractors and employers is that the former involves contracts *for* service, whereas the latter involves contracts *of* service' [authors' emphasis]. By externalising the employment relationship, the contracting body shifts responsibility for award/enterprise bargaining agreement entitlements (e.g. leave entitlements, wages, grievance procedures, union stewards) and common law rights (e.g. the provision of a safe working environment, the contractual obligations of an employer to an employee) between employer and employee, to the contractor. Such strategies are claimed to provide economic advantage through improved service delivery and savings in costs (e.g. superannuation payments, workers compensation coverage) (Spriggs 1998; Benson & Ieronimo 1995; Marcum 1998; Gordon & Walsh 1997).

ACIRRT (1999, p. 4) concluded that the extensiveness of outsourcing activity has led to 'an identifiable 'outsourcing industry' comprised of firms whose sole activity is the provision of particular services to other companies'. Contracted services may involve the contractor being part of an in-house organisational team working on a project, or it may involve the contractor working autonomously, either on-site or at another location. People working externally to an organisation may be employed by a labour-hire company, work for an outsourced supplier or operate as an independent contractor by working for themselves or with others (ACIRRT 1999). It is this latter group — those people operating as independent contractors working with others to supply a product or service — that are the focus of this study.

It is contended that there are similarities in demands placed on contingent workers and those in contemporary organisations (Smith 1997). This is because in contemporary work organisations changes in work structures have resulted in workers employed on a permanent basis also being expected to "act like subcontracted workers" (Smith 1997 p.331). According to Smith (1997) "the strength of this normative system, in which 'everyone is subcontracted', depends greatly on decentred organizational systems in which self-monitoring is essential (DiTomaso 1996 in Smith 1997, p.331).

Reasons for outsourcing

The reasons for contracting out of services — in all industries — are manifold. According to the literature (ACIRRT 1999; VandenHeuvel & Wooden 1999) reasons include a combination of the following:

- To achieve better access to skills
- To respond to changes in demand for labour
- To reduce costs
- To focus on strategic initiatives and outcomes rather than inputs.

In some industries in particular (for example, the IT industry), outsourcing enables an organisation to import needed skills rather than "growing" them within the company. In a number of surveys (Gordon & Walsh 1997; Pearce 1998) outsourcing was primarily used to respond to market demands and to ensure the company was not left with a large workforce in times of low demand for services. In other cases (see ACIRRT 1999) outsourcing has been linked to reducing costs, since sometimes other firms can complete a task more cheaply than in-house production. There is some evidence to suggest (see Hall, Harley and Whitehouse 1995) that some organisations use outsourcing as a means of avoiding higher costs associated with unionised labour or paying employee entitlements, such as superannuation, leave and providing training. The benefits of outsourcing are also contested. The study by ACIRRT concluded that for every study that showed the advantages of outsourcing, there was a study pointing to its failure or actually increasing costs. Pearce & Jones (1998, p. 39) for example, claim that 'the use of contingent workers to gain flexibility in the hiring and firing of workers can directly impede the organisation's flexibility to adapt to changes' (1998, p.39).

Who uses outsourced workers?

VandenHeuvel & Wooden (1999, pp. 21-23) examined the AWIRS database and identified the following:

- Since 1989 growth in contracting out has been concentrated in large firms and workplaces (though it should be noted that the AWIRS database comprises only firms of 20 employees or more and there is also evidence to suggest that smaller firms find outsourcing attractive - see Abraham & Taylor, 1996);
- Private sector firms are more likely to use contractors;
- Growth in the incidence of contracting out has been in firms that operate on a commercial basis, regardless of whether they are public or private;
- Contractor-related employment has gown rapidly in firms less than five years old;

The role of competition as impetus for contracting out appears equivocal. On the one hand, firms in less competitive industries (defined by the number of competitors) are more likely to use contractors. On the other hand, those firms most exposed to international competition in the export sector have most rapidly expanded their use of contractors.

Features of the externalised contingent workforce

From our analysis of secondary data it can be concluded that people responsible for their own work are more likely to:

- Find such work within industries such as electricity, gas and water supply; construction; education; mining, and government administration;
- Work with firms operating on a commercial basis, and that are relatively new.
- Deal with firms that vary substantially in size;
- Develop working relationships with individuals in middle management;

- Are not a homogenous group in terms of the skills they have and the conditions they can demand.
- Put less value on formal training programs and when they do participate in VET, do so independently.

Given the limited research that has been undertaken and to gain an appreciation of what knowledge these worker's require, it is important to also examine what challenges externalised contingent workers face when being responsible for their own work.

THE CHALLENGES FACING PEOPLE RESPONSIBLE FOR THEIR OWN WORK

Workers responsible for creating and managing their own work, face a variety of challenges. These challenges may be specific to this form of working arrangement, or, as the literature indicates, these challenges may be generic to many people working in contemporary work environments (see for example, Waterhouse, Wilson and Ewer 1999; Barratt-Pugh 1998; Moy 1999). Externalised contingent workers are required to:

- manage relationships, situated within a variety of organisational cultures and market contexts (State Training Board of Victoria 1999; Gordon and Walsh 1997);
- apply their knowledge across differing organisational processes, strategies and cultures (Caroli, 1998);
- be responsible for their own development and so be prepared to actively seek feedback (Allan & Sienko 1998; Harris & Greising 1998) and to manage this development (Doyle, Kerr and Kurth 1999; Kerka, 1997).

Managing Relationships

Managing relationships to achieve successful outcomes inevitably involves building trust; identifying client need and the potential intersections between client and provider interest (State Training Board of Victoria 1999, p.18.); being clear about roles and expectations (Finkel 1998) and managing tensions (Smith 1994; Cappelli 1997). Sometimes successful outcomes are influenced by personal and structural tensions that are built into the working arrangements (ibid.). On the one hand, these new work systems depend on loyalty, best practice and innovation (which in turn depend on job security), yet, on the other hand, these systems encourage workers to focus on their immediate self-interest, rather than build trust on the expectation of long term relationships (Cappelli 1997). As a consequence, tension is built into the structures governing working arrangements.

Smith (1994) specifically refers to sources of tension in relationships that externalised contingent workers need to manage. 'Where 'enabled' or permanent workers work alongside 'restricted' or contingent workers there are consequences for conflict and organisation of control' (Smith 1994, p.296). This is the case if permanent workers feel threatened by externalised contingent workers, who may be employed for less money and have fewer conditions than their permanent counterparts. Similarly, contingent workers may recognise their disadvantage in comparison to those more permanently employed. Managing tensions is an important area of building effective working relationships. For the externalised contingent worker understanding their own strategic context may be a means not only of managing tensions, but also of building effective relationships.

The State Training Board of Victoria (1999) emphasises the importance of establishing areas of mutual strategic interest in the context of building partnerships. They explain that all parties need to be clear about long term strategic interests and specific outcomes. To work towards building an effective working relationship, externalised contingent workers need strategic skills to:

- Assess needs;
- Understand and articulate outcomes and assess progress against them;
- Constantly build "intellectual capital" in order to be able to respond to the market; and,
- Develop organisational solutions and nurture and manage relationships (State Training Board of Victoria 1999).

Applying knowledge across organisations and contexts

Externalised contingent workers work across organisational structures and cultures. Constantly changing work environments are an everyday reality for these workers. Mulcahy and James argue that the capacity to deal effectively with changing environments requires strategic competence (1999, p.18). This is a skill attributed to high levels of performance and expertise (ibid.). In the United States, the Secretary's Commission on Achieving Necessary Skills (SCANS) (1991) reported on qualities required to succeed in high-performance workplaces, characterised by high-skill, high-wage employment. The SCANS report found that school leavers and workers required:

- A solid three part foundation, or 'fundamental skills' comprising: basic literacy and computational skills; thinking skills (including creative thinking, decision-making, problem solving, learning to learn and reasoning); and personal qualities)responsibility, self-esteem, sociability, self-management and integrity/honesty)
- Five 'workplace competencies': the ability to manage resources, to work amicably and productively with others, to acquire and use information, to master complex systems, and to work with a variety of technologies (in Moy 1999, pp.10-11).

The terms high-performance, high-wage appears to correlate with the term 'global' workers (Hobart 1999). Hobart states that 'global' workers need flexibility, problem-solving and decision-making ability, adaptability, creative thinking, self-motivation, and the capacity for reflection (ibid., p. 42).

> People with global mindsets have the ability to look at the broader context, accept contradiction and ambiguity, trust processes rather than structure, value diversity and teamwork, view change as opportunity, and strive for continuous self-development (ibid., p.43)'.

Such requirements suggest that these workers are continuously immersed in work environments that expose them to challenge and to meet these challenges they constantly need to construct knowledge.

It is contended that the knowledge and skills required in these work contexts are also the knowledge and skills required by externalised contingent workers working across differing organisational contexts on a regular basis. The knowledge and skills referred to above (e.g. working with others, adaptability, flexibility, reflection) are often termed 'soft' skills (Hobart 1999). As Moy (1999) outlined, such skills are necessary for environments requiring "flexibility, adaptability and responsiveness" (Moy 1999, p.12), features already demonstrated to be important in externalised contingent work. The authors contend that these skills are increasingly required across all forms of working arrangements.

Feedback, reflection and self-development

Acquiring knowledge and skills occurs formally in VET programs and informally through everyday practice. As discussed, there is a tendency for "soft" skills to be acquired informally in particular contexts. Such learning processes require reflection on experience, the capacity to abstract from those experiences to other contexts as well as the capacity to act as a result of reflection and feedback. Externalised contingent workers are more likely to obtain feedback related to job performance from specific events, rather than from the verbal or written statements typically associated with employee-related performance management and review sessions. According to Harris & Greising (1998), such feedback is also likely to be more indirect. Feedback will include a contracting body referring the worker to other jobs, choosing the worker for projects over his or her competitors, and offering additional work. Such feedback is of a very general nature, lacking specific content for reflection and assessment. This indicates that externalised contingent workers are required to be proactive agents in their self-development. Rather than uncritically accept and internalise, these workers need to 'reflect, assess and evaluate' (Confessore & Cops 1998).

In summary, a number of indicators for people working as externalised contingent workers can be identified. Externalised contingent workers need to:

- Manage multiple relationships, and build trust;
- Understand contracts;
- Have a high degree of interpersonal skills and to manage expectations;
- Be able to identify the client's needs;
- Be able to identify how workers can advance the value of their own knowledge and skills base;

- Keep up to date with their technical knowledge;
- Utilise a range of strategies to acquire and use information, understand complex and contradictory systems and to 'read' individuals, organisations and markets;
- To have metacognitive skills to be able to critically reflect and to use multiple methods of gaining feedback on performance.

A common thread in all these requirements is the ability to use knowledge to problem solve (both routine and non-routine) and to transfer knowledge across settings.

METHODOLOGY

The new working arrangements are complex, often multi-layered and what is known about them is limited. Accordingly a qualitative research design has been chosen in order to gain an overview of the context of the arrangements and the kinds of work people do.

The qualitative design is based on a case study approach. Six strategic alliances have been selected across three states and across different industries. Face to face interviews of alliance members will be conducted and followed up by tracking alliance members weekly for a period of one month using telephone interviews. Alliance members will be asked to keep a diary if participants feel this would enhance their recall for the weekly telephone sessions. In addition a contracting body will be interviewed as will other relevant organisations/bodies such as training providers, ITABs, professional bodies and so on.

Case studies have been selected in each of the following states (two in each): New South Wales, Victoria and Tasmania. Purposeful sampling was used to identify strategic alliances for participation in the research. The criteria developed for including the alliances in the research included:

- a mix of industries where the use of contractors is high (for e.g. construction) and industries where contracting is said to be not so prevalent (for e.g. health and community services) - see literature review
- alliances across three states to provide a range of perspectives provided by different economic climates and state VET policies and their implementation.

Alliances that have been approached to participate in the research are set out in the table below:

Table 1: Selection of case studies

Industry/Activity	State
Information Technology	Tasmania
Community Services	Tasmania
Education and Training	Victoria
Horticulture	Victoria
Construction (painting)	NSW
Environmental assessment	NSW

This research will identify issues requiring further research into these new working arrangements, about which there is limited Australian literature. It is an introductory, exploratory study, and as such will not be able to report in any depth about competencies utilised by those working in these arrangements.

In line with this understanding, we have developed the following interview questions for the initial interview with strategic alliance members. The questions cover contextual information about the individual, their background and experience including current study; an introduction into the work they are undertaking by inviting discussion about current or past projects; a number of questions exploring the working arrangements — structural and cultural — of the group; processes and skills used to handle tenders/contracts and learning experiences as a result of undertaking this kind of work. These questions are listed below - without their prompts.

1. Would you please tell me a little about yourself:
2. Would you tell me about the current project you are working on?
3. Can you tell be about how working with this group actually works?
4. How did the group make the decision to put in for this job/tender?
5. Can you tell me a little about the highs and lows of this kind of work?
6. Would you describe what its like to work with this group? Atmosphere/levels of support/access to resources/opportunities for learning
7. Can you think of a problem or task you had to learn (e.g., something might have gone wrong). How did you go about solving it? Who else was involved?
8. VET. Have you been involved in any formal learning or training recently? If yes, what were you learning? Has this helped do this kind of work? Is there any formal learning you think you need but haven't undertaken? Why?
9. Have you or the group used any training providers? Why?
10. What is your relationship like with the contracting organisation?
11. What do you think are the elements needed for a group of people such as this one to work successfully together?
12. Are you a member of any professional bodies?
    Does your professional body provide support/training/learning opportunities? Do you receive or attend any training through your ITAB or other organisations?
13. Your future
    How long been doing this [kind of work] for, do you see this as a permanent way of working for you and why?

CONCLUSION

The literature explored above on externalised contingent workers suggests that these workers are frequently challenged. As such they require, not only the skills of their trade or profession, the 'hard' skills, but a range of 'soft' skills and most importantly the ability to 'negotiate meanings with the environment' and construct knowledge across a variety of settings. We would further argue that these abilities are increasingly required for a growing number of workers across working arrangements as they move from one 'team' to another. The literature also suggests that current arrangements within VET and the emphasis on outcomes rather than learning processes may not meet the learning challenges faced by these workers.

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Outcomes from enabling courses

Oanh Phan & Katrina Ball

INTRODUCTION

The term '*enabling course*' is used to describe lower level preparatory and pre-vocational courses in the vocational education and training (VET) sector. These courses cover a wide range of learning areas including remedial education (e.g. literacy and numeracy), bridging courses, pre-certificate courses and general employment preparation courses.

The main objectives of enabling courses offered in the VET sector are to provide remedial education and preparatory activities. Enabling courses can assist some people to acquire important basic skills that allow them to lead more independent lives and participate in social and community activities. They can also play an important role for those unsure of career choice on entry or re-entry to the labour market or for people who are preparing for a career change.

In the VET sector, a high proportion of students from various target equity groups are undertaking studies in enabling courses. In 1998, students of Aboriginal or Torres Strait Islander descent, students from a non-English speaking background and those with a disability were at least three times more likely to enrol in an enabling course than their counterparts. In addition, students from other disadvantaged or marginalised groups such as those who were unemployed prior to commencing their enabling course or early school leavers were more inclined to undertake studies in these lower level courses.

This large number of enrolments in lower level courses by members of target equity groups has important implications for the labour market. Ball and Phan (1999) have identified that the field of study and the level of qualification are important factors in determining the likelihood of a new Technical and Further Education (TAFE) graduate securing employment. More importantly, however, TAFE graduates from target equity groups in general were found to achieve poorer labour market outcomes than other Australians after taking account of the field of study and the level of qualification of the course.

This study aims to examine the post-course outcomes for members from the various target equity groups who participated in enabling courses. In particular, it will focus the effectiveness of enabling courses in assisting members of equity groups to move onto further education, training and/or employment.

This paper will provide detailed information about students who enrolled in enabling courses by various target equity groups. The target equity groups included in this study extend beyond the traditional definition of disadvantaged groups and include:

- female students
- people of Aboriginal and Torres Strait Islander descent
- people from a non-English speaking background
- people with a disability
- people living in rural and remote areas
- people who were unemployed prior to commencing a 1998 TAFE course
- people who left school early (that is left school before completing year 12)

In VET, target equity groups traditionally consist of groups of people from non-English speaking background, women, Aboriginal or Torres Strait Islander descent, students with a disability, people from rural and remote areas and those with low literacy, numeracy and social skills (NBEET, 1990). Within each equity group there are sub-groups with multiple disadvantages. Failing to recognise the diversity within each target equity group means failing to address the issues related to members of a sub-group and label all members of an equity group as disadvantaged. Volkoff and Golding (1998) pointed out that

> 'One of the limitations of a group targeting approach is that it takes little account of the diversity targeted groups and fails to acknowledge membership of multiple, overlapping groups. It is important to acknowledge intra-group differences, for example NESB cultural and gender groups, between groups

> with different disabilities (e.g. physical, intellectual, psychiatric, sensory), between rural and isolated locations and between Aboriginal and Torres Strait Islander communities. Without such acknowledgment, proposed strategies are in danger of failing to address the causes of disadvantage for individuals and communities who are members of those sub-groups, and potentially labelling all members of a particular group as disadvantaged' (Volkoff and Golding, 1998)

Volkoff and Golding (1998) propose a model to address the complex relationships and the diversity within and between groups in VET. This model comprises *intra-group factors* - applying to subgroups within particular equity target groups; *group-factors* -factors applying consistently to particular equity target groups and *cross-groups factors* - which apply irrespective of and in addition to equity target groups which commonly entrench disadvantage. They suggested that the impact of low skills and unemployment (before or after a VET program), individually or together are particularly important in determining outcomes from VET. These cross -factors were thought to be more detrimental in terms of outcomes when they overlap with other group factors.

Following the work of Volkoff and Golding, this study will also focus on people who are associated with sub-groups of disadvantage such as

- women who come from rural or remote regions of Australia
- women who were unemployed prior to commencing their TAFE course
- women from a non-English speaking background
- people from a non-English speaking background who were unemployed before undertaking an enabling course
- people of Aboriginal or Torres Strait Islander descent who come from rural and remote regions
- people of Aboriginal or Torres Strait Islander who were unemployed prior to undertaking their enabling course
- people with different types of disabilities (e.g. visual, hearing, physical, intellectual, chronic).

There is concern that some students from target equity groups and those from disadvantaged or marginalised groups tend to move from one enabling course to another without progressing onto a higher level of education or training program or achieving job advancement. In doing so, they fail to acquire and update their skills and become less able to compete in the labour market. As a result, these individuals may be more likely to become further marginalised and become dependent on income support.

To determine if enabling courses actually assist these students to progress onto a higher level of education or training program. The level of qualification that an enabling course student enrolled in 1997 will be compared to the qualification level of enrolment in 1998. This will determine if these students progress further and enrol in a higher training course (higher qualification level course) once they have completed an enabling course in the previous year.

In addition, the employment status or enrolment in further studies by individuals six months after they have completed their enabling course will be assessed to determine if an enabling course was effective in assisting these individuals to achieve a positive outcome once they completed a course at TAFE.

DATA AND METHODOLOGY

To date, there have been no studies conducted on the effectiveness of enabling courses in assisting individuals to progress onto a higher level of education or employment. This study is actually the first of its kind due to the availability of the data collected under the Australian Vocational Education and Training Management Information and Statistical Standard and the unit record data from the Graduate Destination Surveys and the Student Outcomes Survey.

1998 VET data

Unit record data on vocational education and training collected under the Australian Vocational and Training Management Information and Statistical Standard were used in the analysis to provide detailed information about students enrolled in enabling course during 1998.

Matching students in 1997 data collection to 1998 data collection

To assess if students from target equity groups tend to move from one enabling course to another, data on students who completed an enabling course in 1997 will be tracked subsequently for 1998. The level of qualification in which a student enrolled in 1997 will be compared to the level of qualification enrolled in 1998. This will determine if students from target equity groups progress further and enrol in a higher level course or training program once they have completed an enabling course in the previous year. (For information on the data matching technique, refer to technical note, NCVER 1998).

Graduate Destination Surveys (GDS)

Unit record level data collected from the 'Graduate Destination Survey -1997', 'Graduate Destination Survey - 1998' and 'National Student Outcome Survey - 1999' conducted by NCVER were used to determine the effectiveness of enabling courses in assisting TAFE graduates to achieve a positive outcome.

The Graduate Destination Surveys involved sending out questionnaires nationally to 1997 and 1998 TAFE graduates. Questionnaires were sent to those who completed a Certificate, Advanced certificate, Associate Diploma, Diploma, Advanced Diploma or Bachelor's degree of at least 200 hours or one semester in duration, and had an Australian address as their usual address. The response rates were 55% (60,746 respondents) and 55.2% (66, 607 respondents) for 1997, 1998 GDS, respectively.

In 1999, the National Student Outcome Survey involved sending out questionnaires to TAFE graduates who attended a TAFE institute in Australia and completed a Certificate, Advanced certificate, Associate Diploma or a Bachelor's degree of at least 200 hours or one semester in duration. In addition, questionnaires were also sent out to TAFE module completers, those who had successfully completed some training in a course, irrespective of the number of hours of the training and left the TAFE system. For the purpose of this study, only responses from TAFE graduates are included for analysis. The response rate from 1999 TAFE graduates was 55.8% (63,000 graduates responded).

In some instances, the response rates in individual surveys from members of some equity groups were not sufficient to provide meaningful analysis. This problem is overcome by using information from the three surveys.

FINDINGS TO DATE

1. General profile of enabling course students

In 1998, 18.0% of enabling course students came from regions with a median (i.e. the midpoint) household income of $399 or less. The median household income for approximately half of enabling course students was between $399 and $599. The equivalent household income for Australians during the 1997-1998 period was $499 (ABS, 6302.0).

In May 1998, the unemployment rate for civilian population aged 15 and over was 7.9% (ABS, 6203.0). Only one third of students in enabling courses came from areas with an unemployment rate of less than 7.9%. A quarter of enabling course students were from areas with an unemployment rate of 9.67% or higher, and a further quarter were from areas with an unemployment rate of at least 13.6%. These findings suggest that enabling course students tend to come from regions of a high rate of unemployment rate and lower than average incomes.

Proportion of enabling course students

Students who indicated that they are of Aboriginal or Torres Strait Islander descent, from non-English speaking background or they have a disability were more inclined to enrol in enabling courses than other Australians. Similarly, students who left school before completing year 10 and those who reported that they were unemployed prior to commencing their enabling course were at least three times more likely to undertake studies in lower level courses when compared to their counterparts (table 1). Men and women were equally likely to enrol in enabling courses. There was not very much variation in the number of remote or rural students compared with those from metropolitan or capital cities.

In 1998, there were 83,200 students enrolled in enabling courses. Of this number, women from rural or remote regions of Australia contributed 12.8% to the total number of enabling course students and almost 16.0% of these students were women who were unemployed prior to commencing their enabling course. Female students who come a non-English speaking background made up 21.8% of the total number of enabling course students and only 7.0% were students from a non-English speaking background who were unemployed prior to undertaking their enabling course. Less than 3% Aboriginal or Torres Strait Islander students coming from remote or rural regions were enrolled in enabling courses, and similarly, there were very few students (1.3%) who reported that they are of Aboriginal or Torres Strait Islander descent and unemployed prior to commencing their enabling course.

Table 1: Proportion of students in enabling course

Demographic factors	Total number of VET students ('000)	Number of enabling course students ('000)	Proportion of students in enabling course (%)
Female	726.7	44.7	6.1
Male	773.8	38.2	4.9
Aboriginal or Torres Strait Islander descent	44.4	6.8	15.4
Not of Aboriginal or Torres Strait Islander descent	1166.7	64.9	5.6
Non-English speaking background	187.6	29.3	15.6
English speaking background	986.9	43.7	4.4
Has a disability	53.9	7.9	14.7
Has no disabilities	1120.4	62.8	5.6
from Rural or remote regions	494.1	21.3	4.3
from metropolitan or capital cities	959.7	60.0	6.3
Unemployed prior to undertaking VET course	213.1	23.5	11.0
Employed prior to undertaking VET course	736.7	19.8	2.7
Completed year 12	464.4	18.5	4.0
Completed year 11	160.2	7.3	4.6
Completed year 10	286.7	15.5	5.4
Completed year 9 or below	109.7	19.2	17.5

Distribution of enabling course students by age

The majority of women undertaking enabling courses are aged between 30 years and 59 years. Similarly, there was a high proportion of students coming from a non-English speaking background who were 30 to 59 years of age. In addition, enabling course students aged 30 to 59 are also likely to be females from rural or remote areas, females who were unemployed prior to undertaking VET course, females from non-English speaking background and students from a non-English speaking background who were unemployed prior to undertaking a VET course.

A high proportion of students coming from Aboriginal or Torres Strait Islander descent, rural or remote regions and those who were unemployed prior to commencing their enabling course were 15 to 29 years of age. Likewise, the majority of early school leavers, Aboriginal or Torres Strait Islander from rural or remote areas and Aboriginal or Torres Strait Islander who were unemployed prior to undertaking their VET course were in the 15 to 29 years age group (see table 2).

Table 2: Distribution of students in each target group by age

Demographic factors	Age (years)							
	15-19 %	20-24 %	25-29 %	30-39 %	40-49 %	50-59 %	15-59	15-59 ('000)
Female	19.0	12.6	12.4	26.9	20.6	8.5	100.0	41.7
Aboriginal or Torres Strait Islander descent	28.1	17.4	14.6	23.2	12.4	4.3	100.0	6.4
Non-English speaking background	6.6	11.8	14.3	32.0	24.6	10.6	100.0	27.2
Has a disability	23.6	15.4	11.3	22.1	18.5	9.1	100.0	7.5
Types of disabilities								
visual/sight/seeing	*27.9*	*14.0*	*9.5*	*18.8*	*17.7*	*12.1*	*100.0*	*0.8*

hearing	*16.8*	*13.4*	*12.8*	*21.3*	*22.6*	*13.2*	*100.0*	*0.6*
physical	*9.6*	*9.7*	*10.2*	*27.5*	*28.8*	*14.2*	*100.0*	*1.2*
intellectual	*27.1*	*20.4*	*13.8*	*22.1*	*12.4*	*4.2*	*100.0*	*2.5*
chronic illness	*18.0*	*11.3*	*7.2*	*20.7*	*23.8*	*19.1*	*100.0*	*0.4*
other disability	*32.5*	*15.1*	*9.5*	*19.2*	*16.5*	*7.2*	*100.0*	*1.6*
unspecified disability	*14.0*	*13.7*	*11.9*	*27.4*	*23.2*	*9.8*	*100.0*	*0.3*
From rural or remote regions	30.4	13.8	11.6	23.0	15.0	6.2	100.0	19.8
Unemployed prior to undertaking VET course	25.6	14.5	12.1	24.5	17.4	6.0	100.0	22.8
Completed year 11	34.8	17.8	11.8	19.8	12.4	3.3	100.0	7.2
Completed year 10	33.1	12.7	11.4	23.3	14.3	5.1	100.0	15.1
Completed year 9 or below	30.5	11.4	10.0	21.5	18.2	8.4	100.0	18.0
Females from rural or remote areas	25.2	12.3	11.4	25.7	17.9	7.5	100.0	9.9
Females & unemployed prior to undertaking VET course	20.0	14.0	12.4	27.3	20.2	6.1	100.0	12.8
Females from NESB	4.6	11.4	14.3	32.8	26.1	10.8	100.0	16.9
NESB & unemployed prior to undertaking VET course	4.8	11.6	14.7	33.9	25.7	9.3	100.0	9.2
ATSI from rural or remote areas	27.8	17.0	14.1	23.7	12.9	4.6	100.0	3.7
ATSI & unemployed prior to undertaking VET course	30.9	17.3	14.6	22.7	11.8	2.7	100.0	2.1

Field of study

In the vocational education sector, a number of classification systems are used to describe the content and level of courses, these include:

- Field of study - which describes the primary subject matter of the course,
- Stream of study – which describes the type and level of the course and
- Qualification category – which classifies the qualification awarded to an individual on successful completion of a course.

Generally, enabling courses offered in the VET sector are those described in the Australian Vocational Education and Training Management Information and Statistical (AVETMIS) Standard under the headings of '*Technical and Further Education (TAFE) Multi-field education*' field of study and '*2100 Basic employment skills*' or '*2200 Education preparation*' stream of study. In contrast to enabling courses offered at Universities, enabling courses offered within the VET sector generally result in a recognised qualification. A student who has completed an enabling course within the VET sector is likely to receive an '*Australian Qualification Framework (AQF) – Certificate II*', '*AQF – Certificate I*' or '*AQF –Senior secondary*'.

On the whole, most of enabling course students coming from various target equity groups tend to enrol in courses in the fields of '*English as a second language*', '*Pre-vocational/pre-employment spanning broads fields*', '*General skills development*' and '*TAFE multi-field, basic education – general*'.

'*English as a second language*' consists of courses such as 'Certificate I in Spoken and Written English' or 'English as a second language: basic'. Half of the course enrolments by non-English speaking background students were in courses within this field of study. Almost 45% of enrolments by Aboriginal or Torres Strait Islander students were in the '*Pre-vocational/pre-employment spanning broads fields*', these fields consist of courses such as 'Work Skills', 'Employment Access' or Certificate I in Work Education'. Courses in the '*General skills development*' fields include 'Certificate in general education for adults' or 'Certificate I in planning for employment and training'. These courses were largely undertaken by those who completed year 9 or below as their highest level of secondary schooling (33.7%). About 30% of course enrolments by students from remote or rural areas were in the '*TAFE multi-field - basic education – general*', this field of study consists of courses such as 'Certificate I in Initial Adult Literacy and Numeracy' or 'Certificate I in Vocational Access'.

Module completion rates

Table 3 shows the module completion rates, by demographic factors for enabling course students. On the whole, female studying an enabling course had a slightly higher completion rate than male students studying an enabling course. NESB students also achieved a higher completion rate than their counterpart.

Generally, enabling course students of Aboriginal or Torres Strait Islander descent had a poorer outcome than other Australians while students from remote or rural areas had a lower completion rate than those from metropolitan or capital cities.

Whether students have a disability or not did not affect the module completion rate, students reported to have a disability tend to have the same completion rate as those with no disabilities. Students who were unemployed prior to commencing a VET course also had a similar outcome as those who were employed.

Students of Aboriginal or Torres Strait Islander descent who were unemployed prior to undertaking VET course achieved relatively lower completion rate than unemployed females and the completion rate was also lower than students from a non-English speaking background who were unemployed.

In addition, students who completed year 12 or year 11 as their highest level of secondary schooling generally had a higher completion rates than those who only completed year 10 or below. Students who completed year 9 or below achieved the poorest outcome when compared to other students who completed year 10 or higher as their highest level of secondary schooling.

Table 3: Module completion rates by target equity groups

Demographic factors	Module completion rate
Female	70.1
Male	67.7
Aboriginal or Torres Strait Islander descent	57.4
Not of Aboriginal or Torres Strait Islander descent	70.1
Non-English speaking background	71.1
English speaking background	67.7
Has a disability	69.4
Types of disabilities	
visual/sight/seeing	69.6
hearing	70.4
physical	67.5
intellectual	72.6
chronic illness	67.1
other disability	66.3
unspecified disability	69.7
Has no disabilities	68.3
From rural or remote regions	66.1
From metropolitan or capital cities	69.8
Unemployed prior to undertaking VET course	69.4
Employed prior to undertaking VET course	70.3
Completed year 12	73.8
Completed year 11	73.4
Completed year 10	69.6
Completed year 9 or below	61.7
Females from rural or remote areas	66.5
Females & unemployed prior to undertaking VET course	71.1
Females from NESB	72.2
NESB & unemployed prior to undertaking VET course	72.5
ATSI from rural or remote areas	57.3
ATSI & unemployed prior to undertaking VET course	56.0

2. THE EFFECTIVENESS OF ENABLING COURSE IN ASSISTING INDIVIDUALS TO PROGRESS ONTO A HIGHER LEVEL OF EDUCATION OR TRAINING PROGRAM

In 1997, there were some students who enrolled in more than one enabling course, and similarly, there were some students who enrolled in more than one VET course in 1998. In these instances, the highest level of qualification enrolled in 1997 is compared to the highest level of qualification enrolled in 1998.

The order of level of qualification in terms of recognition is as following:

- Diplomas
- AQF –Certificate IV or equivalent
- AQF – Certificate III or equivalent
- AQF – Certificate II or equivalent
- AQF – Certificate I or equivalent
- AQF – Senior secondary

For the purpose of this study, other certificates such as 'Certificate of competency', 'Certificate of proficiency', 'Endorsements to certificates' and 'Statement of attainment' will be classified as 'Other level of qualification'.

A student has enrolled in a higher level of qualification if in 1997 they enrolled in 'AQF- Certificate II' and subsequently, enrolled in 'AQF- Certificate III', 'AQF –Certificate IV' or 'Diploma' in 1998. However, if this same student had enrolled in 'AQF – Certificate I' in 1998, then this student will be considered to have enrolled in a lower level qualification course. Alternatively, if this student was undertaking a course which resulted in a 'Certificate of competency', 'Certificate of proficiency', 'Endorsements to certificates' or 'Statement of attainment' in 1998, then this student will be considered as having enrolled in an 'other' level of qualification.

On the whole, about 40% of the course enrolments by students from various target equity groups were in the same level of qualification as the previous year. A third were in a higher level of qualification and less than 5% were enrolled in a lower level of qualification. Approximately 20% of course enrolments by members of target equity groups were in an 'other' level of qualification.

Just over 40% of students from the target equity groups enrolled in 'AQF –Certificate II' in 1997 were enrolled in the same level of qualification in 1998. Students of Aboriginal or Torres Strait Islander descent were more likely to enrol in a lower level qualification than in 1997 when compared to members of other target equity. Approximately 15% of course enrolments by students of Aboriginal or Torres Strait Islander descent were in a lower level of qualification compared to less than 10% by members of other target equity groups.

Women, students from a non-English speaking background and those who completed year 11 or year 10 were more likely to enrol in a higher level course in 1998 after they had completed an 'AQF –Certificate II' in the previous year.

Students from the target equity groups who have enrolled in 'AQF –Certificate I' in 1997 were very unlikely to undertake a lower level course in 1998. Over 50% of students from a non-English speaking background and those who reported that they had a disability have enrolled in the same level of qualification as the previous year. Similarly, at least half of the course enrolments by students who had only completed year 9 or below, non-English speaking background students who were unemployed, and non-English speaking background women were enrolled in the same level of qualification. However, students who had completed year 10 or those from Aboriginal or Torres Strait Islander who were unemployed prior to undertaking their VET course were more likely to undertake a higher level course in 1998 after having completed an 'AQF –Certificate I' in 1997.

At least half of the Aboriginal or Torres Strait Islander students who enrolled in 'AQF –senior secondary' level of qualification in 1997 also enrolled in the same level of qualification in 1998. On the contrary, students with a disability, from a non-English speaking background, non-English speaking background who were unemployed and women who were unemployed six months prior to undertaking their VET course have enrolled in a higher level of qualification in 1998.

These findings suggest that a large proportion of students from target equity groups are still enrolled in the same level of qualification once they have completed an enabling course. However, this may not necessarily mean that enabling courses have not assisted these groups to progress onto higher levels of education. Within the same level of qualification, there are courses of different stages. Hence, it is possible that some of these students have progressed onto the next stage of the course but still remain in the same level of qualification. For example, 'Certificate I in Work education 1' and 'Certificate II in Work Education II' are both under the 'AQF- Certificate I' level, however, one needs to complete 'Certificate I in Work Education I' first before being able to undertake 'Certificate I in Work Education II'.

3. EFFECTIVENESS OF ENABLING COURSE IN ASSISTING INDIVIDUALS TO GAIN A POSITIVE OUTCOME SIX MONTHS AFTER COMPLETING THE COURSE

When asked to indicate reasons for undertaking their TAFE course, the majority of TAFE graduates from various target equity groups indicated that they chose to study their course because they wanted

- to get a job or own business
- to get into another course or
- for interest or personal reasons

On the whole, about 60% of graduates from the target equity groups believed that the course they undertook assisted them to achieve their goal. Approximately, 10% reported that they course did not help to achieve their goal, and a further 20% indicated that they their course partly assisted them in attained their goal.

Employment outcomes

The employment status six months after course completion and the employment status six months prior to commencing an enabling course were examined to determine if undertaking an enabling course at TAFE assisted graduates to gain employment,.

Six months after course completion, there was a 3% increase in the proportion of women gaining employment. Similarly, there was also a 3% increase in the proportion of early school leavers gaining employment. In addition, there was a larger proportion of graduates from rural or remote regions gaining employment six months after course completion. Six months prior to undertaking their enabling course, there was only 29% of graduates from rural or remote areas who were employed, however, this proportion was increased to 32% six months after course completion.

The proportions of graduates from Aboriginal or Torres Strait Islander descent, a non-English speaking background or those with a disability who gained employment six months after course completion did not differ very much to the proportion of those who were employed six months before commencing enabling course. Similarly, there was not very much variation in the proportion of women from a non-English speaking background who were employed before or after a VET course. The proportion of graduates of Aboriginal or Torres Strait Islander descent from rural or remote areas who were employed six months after completing an enabling course was the same as the that prior to commencing their VET course.

Further studies

Except for those from non-English speaking background, about half of students from various target equity groups have decided to enrol in another course since completing their enabling course. Over 70% of non-English speaking background graduates reported that they have undertaken some further studies.

Over three quarters of students undertaking their further studies have enrolled at TAFE Institute or a VET provider and approximately a quarter of these enrolments were in 'AQF -certificate II' or 'AQF -certificate I'. About 40% of these enrolments were also in 'AQF - certificate IV' and 'AQF - certificate III'. Furthermore, approximately 10% of these students have progressed further and enrolled in a 'Bachelor's degree', a 'Diploma' or an 'Associate diploma'.

FURTHER WORK

The initial findings reported in this paper merely provide the general profile and the outcomes of enabling course students in each of the target equity groups. It is anticipated that further work involving the disintegration of data at the course level will provide more information about enabling course students. Regression analysis will also be conducted to investigate factors which influence the outcomes of VET for enabling course students in these target equity groups. Furthermore, students who have enrolled in enabling course in 1996 will be tracked subsequently in 1997 and then 1998, this will provide detailed understanding of the level of qualification and the course enrolled by enabling course students in subsequent years.

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Selling TAFE short: Are VCE business students deterred from choosing the TAFE business option?

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INTRODUCTION

The view that the only successful outcome of the Year 12 Victorian Certificate of Education (VCE) is the achievement of a Equivalent National Tertiary Entrance Ranking (ENTER) score that ensures a university place, has led to a strong emphasis by secondary schools preparing students for tertiary study, regardless of the interest and abilities of their students. Once the competitive marketing strategy of solely the more prestigious private boys' schools, this strategy is increasingly being used within secondary schools in the state sector (Cook, 1997).

Vickers (1993, 33) argues that we need to stop juxtaposing academic and vocational education against each other, observing that "A competitive workforce - a competitive economy - will demand the highest levels of intellectual creativity and skill from every worker." However, it seems that securing a TAFE place is not regarded as a successful outcome of Year 12 either by secondary school students, or the community at large (Dwyer *et al.*, 1997), resulting in some, and perhaps particularly male students, appearing to devalue the opportunity, in terms of qualifications and even pathways into higher education, that TAFE can provide.

This paper is concerned with the way some boys within the secondary school sector view the TAFE sector, often dismissive of the information provided by careers teachers, and the way in which their views appear to change once exposed to the TAFE sector. The concern here is that students may miss out on what could be a significant tertiary educational opportunity.

METHODOLOGY

Eight post-Year 12 male students were the focus of this qualitative study, which formed the basis of a Master of Education thesis (Pitt, 1998). Tape-recorded semi-structured interviews were conducted at the Hawthorn Campus of Swinburne University of Technology, a multi-sectorial institution with five campuses located in the eastern suburbs of Melbourne. These eight young men were, or had been, enrolled in the two year TAFE Associate Diploma of Business (Marketing) offered at Swinburne's Hawthorn Campus, and at the time of the interviews three had still to complete the course. Of the five who had successfully completed their course two were in full-time employment and three had already been accepted into undergraduate degree courses.

BACKGROUND

Anecdotal evidence suggests that many boys are not achieving academically at the levels to which they aspire, believe they are capable of and, indeed, expect to achieve? So what happens then to those boys who do not achieve? In order to understand what is happening to boys in secondary schools, not only the culture within those schools has to be understood, but also society's notion of what it means to be a 'successful' male.

Schools, regardless of social class, are seen as crucial cultural institutions involved in the shaping of masculinity. Both Mac an Ghaill, (1994: 197) and Connell (1993: 95-98) observed that "masculinity shapes education, as well as education forming masculinity" via the curriculum "which organises knowledge hierarchically, and sorts students into an academic hierarchy through competitive grading and streaming." Salisbury & Jackson (1996) also observed that it is "the important, serious knowledge schools transmit that counts as serious to the ruling groups within society, namely the male, middle-class, white, able-bodied, heterosexual majority, and that the ruling group have legitimised, validated and authorised a particular type of knowledge" (p. 25). It is apparent that acquiring this serious, rational knowledge, which is perceived to be the domain of universities and sustains the professions, is the goal of most VCE students in middle-class schools.

Taking up a place in the TAFE sector might, for some male students, confirm their lack of academic achievement, as this sector is viewed by many across the spectrum as 'second-class', or at best, the less attractive alternative in post-secondary education (Chapman & Smallwood, 1992; Dwyer *et al.*, 1997). This is particularly relevant for full-time male students enrolled in a TAFE Business Studies course, and may result in such a course attracting some students who are confused or even angered over their inability to secure a university place, and who feel as though they have failed.

It needs to be stressed that the students in this course are quite academically able, having achieved an ENTER score within the mid 40s to mid 50s range, which would allow them to gain entry into an undergraduate business course at a number of universities. They are not the students who are failing to achieve, but rather those who are not achieving at a level at which they believe they could or should.

Unlike Walker's (1988) 'Louts and Legends' who came from a disadvantaged school, or Connell's (1993) group of young men "from the unrespectable end of the working class" (p. 92), these young men were all from middle-class families in the green and leafy eastern and south-eastern suburbs of Melbourne. Five of the eight had attended private schools. Their families were mostly professional and would understand the value of, and need for, education. These students had intended to go to university and none had chosen TAFE as their first choice or, in fact, as a choice at all.

VCE STUDENT AWARENESS OF TAFE

Given that the community generally values university as being a more desirable provider of tertiary education than TAFE (Chapman & Smallwood, 1992: 15), there is a strong focus on the linear pathway from secondary school to university (Dwyer *et al.*, 1997) as the only real option. This can be understood from the teachers' perspective, as virtually all secondary school teachers have come through the university system and few, if any, have experienced the TAFE sector at a personal level. Even parents who are in a profession are more likely to have an undergraduate degree or to recognise it as a minimum qualification.

It is understandable that students would hold the view that TAFE is a place for students who have failed to gain entry to university, because it is, after all, the message the secondary sector conveys by actively promoting higher education whilst tending to ignore TAFE (Dwyer *et al.*, 1997:28). It is hardly surprising therefore that males generally expect to get their first preference (course of their choice); regard university more highly than TAFE; and consider that their parents' views concur with this opinion (Chapman & Smallwood, 1992: 27).

The students in this study were all aware of TAFE but did not consider it an option for them, as evidenced by the following comments:

> You were deciding which uni to go to and TAFE wasn't really something...you don't expect to go to TAFE at the start of the year. (Thomas)
>
> At the start of the year before I did exams it was just 'which Uni am I going to?' I never even considered TAFE (Brock)
>
> All I knew really about TAFE was just a main generalisation that it wasn't as good as a University (Scott)

Business courses within the TAFE sector were, for most of these students, unknown and rarely considered.

SENSITIVITY TO ADVICE FROM SCHOOL CAREERS TEACHERS

According to the hegemonic masculinity apparently prevailing within the culture of their middle-class secondary schools, where academic success and university entrance equates to power, a student destined for TAFE would then conform to Connell's notion of the 'failed' (1993: 95). That this view prevails not only within the schools, but also among parents and peers (Dwyer *et al.*, 1997: 44), might well begin to explain why these young men were either not receptive to, or did not believe, the information regarding TAFE.

> The Careers Counsellor talked to us about TAFE and said it was an option but you know, she didn't put it down in any way but it was set in my mind that TAFE's for trades and I did not want to do a trade. (Brock)

> The teachers didn't exactly describe what TAFE was, they more put it as what sort of an option it was. TAFE was presented as something that if you didn't get into university kind of thing. (Doug)

> We got told that while Uni is very theoretical, TAFE is much more practical and that it wasn't always a bad thing to go to TAFE either. It was just sort of a stepping stone...(but)....if you had your mind set on going to Uni, it's sort of like a step down. A backward step. (Billy)

It would appear that the information available to students in the private sector was more comprehensive than that generally available in the state sector. Alain, who attended a state high school announced in a somewhat matter-of-fact way

> I am sure there is a lot more that I could have done if there was a careers teacher and that, but we weren't told anything and we pretty much had to seek it for ourselves which was fair enough.

However, information about the TAFE sector was more likely to be dismissed as not relevant by those students within the private sector, as illustrate in this comment by Matt.

> The emphasis is 'do uni, do a uni course, uni, uni, uni, uni, and never, like A TAFE'.

STUDENT INSIGHT INTO THEIR OWN ABILITY

A recent Australian study of secondary school students showed that males were more likely than females to rate their ability as good, and that at the upper secondary school level, male students had a tendency to over-estimate their levels of competence (Rennie & Parker, 1996). This was a common thread among the male students in this study who believed that they would achieve at a level significantly above the range into which their final result fell. This caused them considerable angst at the time and was still clearly troubling at the time of the interview. The most moving account came from Brock who expected to achieve well above his final score of 55:

> I was a mess after that. I so much thought I was going to get a lot higher. Maybe in all honesty like 75. I couldn't even believe I was going to TAFE. So when I got my marks and understood that I was going to TAFE I could not believe it — like I am looking at myself and I could not believe — I just could not believe I was going to TAFE. I would never have thought it.

Thomas had also overestimated his likely score, acknowledging in a voice that was quiet and flat:

> At the beginning of the year I thought I would aim for 80 plus and as the year went on I thought (pause) its probably not possible and I thought at the most 70 or in the 60's somewhere. And then the result I got was 53 which is...(trails off) I had to change everything, all my preference and all of that, course selection, and I wasn't very happy.

Billy, with a swaggering bravado somewhat reminiscent of Ludowyke's 'cool to be a fool' culture, also failed to predict his likely outcome, saying wryly:

> When I began VCE as an actual mark I was aiming for maybe an 80. The 80 changed three-quarters of the way through Yr 12. I was expecting maybe a 70, 75 and then, I wouldn't say I was slack, I think I just might have left things a little late or not enough research. I ended up with 43 and a half or something.

OBSERVATIONS OF TAFE AS A TAFE STUDENT

Despite their ENTER score, these young men had all enrolled in a TAFE business course believing that it would be the 'easy option'. It appears that they still clung to the notion that they would succeed, moving on and up to the higher education sector effortlessly, as these comments clearly indicate

> (Initially) I was under the impression that I wouldn't have to work hard and yet I would still do well. At the start I thought it would be like a walkover. I'm just so gifted I'll walk in and go, you know because I'm going to TAFE and I'm with all these carpenters you know, because they're the people who go to TAFE. (Brock)

> There's a perception with TAFE that you shouldn't be getting less than HD or a distinction because you think TAFE is easier than higher Ed because the work will be like, you know we had two maths levels at VCE you've got hard maths and the easy maths. I thought this would be like the easy marketing compared to the hard marketing! (Thomas)

However, as they approached the completion of the course, or in some cases, reflecting back, they could acknowledge that TAFE was more professional and required more effort than initially thought, and their comments proved quite insightful:

> Well even first semester I thought they (my results) would have been a lot better but I got distinctions but I didn't get high distinction. But from my initial thoughts I thought I would have done a lot better. (Brock)

> I thought I could have done a bit better if I'd really have got down to it a bit more. Studied more. (Scott)

> I would say it was a great opportunity. A step towards Uni, because you have got that learning under you and you are given a great opportunity to go up to Uni and when you do get there you've got that learning behind you and I think it would make it easier too (Billy)

Another interesting point also emerged as Thomas reflected on his TAFE experience. He had specifically chosen a multi-sectorial institution so that he could mask his TAFE status by telling others simply that he 'went to Swinburne'. He now valued both the course he had undertaken and TAFE generally, and was thus more comfortable saying 'TAFE, Swinburne TAFE'.

CONCLUSION

These young men had enrolled in a TAFE business studies course following, what was for them, an extremely disappointing VCE result. They approached the TAFE sector with a somewhat negative attitude, believing that they would be competing with tradesmen, even though they were undertaking a business Marketing course. Once exposed to the sector, they began to realise that TAFE was not only both challenging and relevant to them, but also provided a range of options. Some had specifically chosen a course offered at Swinburne's Hawthorn campus because it allowed them to mask their status as a TAFE student, and others because it afforded them a pathway into the higher education sector.

Having studied in the sector had changed their perceptions and they became more comfortable with their TAFE status. They were now able to acknowledge that it had allowed them the opportunity to consolidate their study and time management skills and that it had, or was likely to, facilitate a phased-transition from school to the higher education sector.

The issue now becomes how can we, educationalists and researchers, change the views of secondary school students, teachers, parents and, importantly, the professions.

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The leadership of change — a TAFE study

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ABSTRACT

TAFE NSW is currently experiencing a number of changes aimed at meeting the requirements for a more flexible and responsive vocational education and training sector. These changes are occurring as the result of a government policy of economic rationalism and the belief that competition in the sector will enhance the quality of training provided and better meet the needs of the customer.

Research in the vocational education and training sector is diverse. Current attention in TAFE is clearly focused on the introduction of new work practices aimed at ensuring TAFE can take its place in the restructured training and education environment.

But what of the leaders within TAFE who have to play a major role in the implementation of these changes? Contemporary Management Theory argues that a transformational style of leadership should be used in both private and public sector organisations to facilitate the progression of change and innovation.

This paper examines the paradox between the push towards a change-focused culture in TAFE that, theoretically, requires transformational leadership and the restrictions of a TAFE system that appears to hinder the use of this management style. It is part of a larger study (currently under review) that investigated the management styles of women managers within TAFE.

The paper presents the views of a number of managers interviewed for the larger study. It is a snapshot view of their feelings and perceptions which raises questions about the ability of TAFE personnel to implement changed work practices in an environment that does not appear to fully support its members in doing so.

BACKGROUND

Since the 1980s organisations in Australia, and indeed across the world, have been subjected to change in proportions not experienced in the past. The changes have resulted from a realisation that global competition is a major driving force behind the productivity and success of organisations. To meet the challenges thrust upon them organisations have undergone massive changes in structure, culture and workplace practices.

There has been an attempt to transfer private sector corporate management to the public sector bringing with it private sector effectiveness (Sinclair & Mariott 1990, 17; Adler, Laney & Packer 1993, 3). This 'managerialism' is a result of the economic rationalist approach of a government requiring an increase in the flexibility, efficiency and responsiveness of a system that has traditionally been organised along very bureaucratic, protected lines.

The same economic imperatives driving changes in private organisations are therefore demanding changes in the way public organisations are organised. It is not only the government demanding changes in the way these institutions are run but the community and, especially in the case of Technical and Further Education (TAFE), industry. TAFE faces an increasing need to cooperate with other educational providers, to meet government demands for a competitive vocational education and training system and to be accountable to the community and industry for the quality and efficiency of its services.

Joy Selby Smith (1995, 10) enunciated the government's argument that TAFE had not been responsive to changing demand conditions in relation to training provision therefore it was in the public interest to foster a more open and competitive publicly funded vocational education and training market. 'There is a need to recognise that the TAFE sector...must embrace significant changes in attitudes, approaches and the way it goes about its work. Cultural change is required at all levels' (Selby Smith 1995, 25).

While Selby Smith agreed that some people had embraced the change and had become true entrepreneurs others, still committed to the old system, would feel that to commercialise many of TAFE's operations was to go against the 'higher' purpose of TAFE (Kell 1992, 6; Raethel 1996, 12; Anderson 1996, 37). They believed that TAFE would lose the support of the community if it perceived the organisation was moving away from its central role of teaching and supporting students especially those who were economically and socially disadvantaged.

Goozee (1993, 170) felt the next decade in TAFE would be a time of instability as its systems and managers attempted to meet the new demands placed upon them within a climate of sluggish economic activity and funding constraints. At a time when sources of funding were becoming fragmented and marginalised TAFE would have to battle to maintain its status and identity as a major provider of vocational education and training.

Management in TAFE, therefore, faces twin tensions - between the demand for flexibility and responsiveness and the imposition of tighter management structures to ensure accountability within a system of much stricter economic restraints (Daws 1995, 97).

A NEW MODEL OF LEADERSHIP

It has been argued that the traditional style of management is inappropriate for today's organisation. A more flexible, responsive leader displaying high trust, participative management styles is needed to replace the autocratic, individualised, competitive leader who was found to be effective in the past (Smith & Hutchinson 1995, 93).

Current management literature focuses on the 'transformational' leadership style as meeting the requirements for organisations of the future (Rosener 1990; Limerick & Cunnington 1993; Alimo-Metcalfe 1995; Parry, 1996).

Sergiovanni (1990), Hallinger (1992), Duignan and Macpherson (1992), Ozga (1993), Adler, Laney and Packer (1993) and Burford (1996) argue that this shift to a transformational leader is required in educational institutions. They contend that the leaders in these institutions should no longer be administration managers or instructional leaders. Rather they need to decentralise authority over curriculum decisions, expand roles for teachers, students and the community in decision making and emphasise active learning. The transformational leader in education is envisaged as one who communicates a sense of excitement, originality and freshness to the organisation. The transformational leader also challenges others to participate in defining the vision and the preferred way of acting in education. According to Chui, Sharpe and McCormick (1996, 31) this last characteristic, vision, is 'essential to effective transformational leadership' and is what 'distinguishes leader from manager'.

THE STUDY

A study was conducted to examine the management styles of senior women managers at the Head of Studies level within the context of TAFE. The aim was to gather information on how the managers perceive their styles and to obtain the perception of others influenced by their management style. Interviews were conducted with three women executives (Institute and College Directors) in the first stage of the study to supplement a very meagre literature review of the cultural context within which women managers find themselves in TAFE. The second stage of the study involved gathering information from four women Head of Studies and seven of their nominated colleagues (both male and female). The participants in the study came from different discipline areas in different TAFE colleges located in the metropolitan area of Sydney.

A qualitative approach was chosen for the study using the case study methodology because it allowed an understanding and an interpretation of the world as seen from the experiences and perceptions of the study participants (Fonow & Cook 1991). It also allowed an interpretation of conceptual categories developed from thick description (Patton 1980). As the case study simply provides a snap-shot of a situation at one point in time there was no attempt to generalise the findings of this research to another time or place.

Whilst the main focus of the study centred around the management styles of women in TAFE (Rice 1997), a number of interesting issues regarding the impact of changing work practices on this management style came to light. This paper presents some of these findings. It must be noted that the words presented on the following issues are not necessarily direct quotes from participants in the study. In some cases their words have been paraphrased to allow for clearer sentence structure.

THE CHALLENGES

The change in the political context in which TAFE operates was seen as the major cause of structural and cultural change in TAFE. There was a recognition that the economic rationalist model or philosophy being embraced by past and present governments has driven TAFE to alter both the way it delivers vocational education and training and the way this education is financed. The study participants perceived the difficulties for TAFE were in coming to terms with the resulting increase in competition and the destruction that could result from a loss of focus on TAFE's traditional role. They said:

> This new philosophy is at odds with the values that we hold near and dear with respect to the educational philosophy which underpins what we do and... the strong sense of social justice which we have been committed to.
>
> TAFE is operating in an environment of tangible political intervention under an economic rationalist approach that has not given itself time for reflection. How the economic rationalist approach affects what TAFE actually does, what TAFE's core business really is and how the two can live cohesively has not been well thought through.
>
> Economic rationalism is destroying TAFE...Managers in TAFE, while fighting for their survival, are constrained by their lack of knowledge of where TAFE is going and what they are supposed to be doing.

One of the major implications of the 'new' approach to vocational educational and training has been a perceived reduction of resources to manage the TAFE system. Participants in the study felt that the concentration on dollars caused a loss of staff expertise, a loss of flexibility in decision making and a deviation away from TAFE's traditional 'second chance' education role:

> When there is not a lot of money around the way of resolving the tension for an institute to operate and do more with fewer funds is to centralise. If you actually want people to produce good things in colleges they have to have ownership and this ownership is lost with centralisation. The situation creates an 'us and them' mentality and a lack of responsibility.
>
> There is a conflict between being flexible and proactive and the enormous restrictions placed on what managers can do, how they can do it and how much they have got to do it with. No-one has identified how managers can cross the great gulf between what they are asked to do and how they actually do it given the structural, process and financial constraints placed on them.
>
> I know that if we don't get the income, if we're not out there promoting fee-for-service courses and trying to raise funds we will be in dire straits.
>
> There are a lot more limitations on managers in terms of budgetary constraints in the current climate with TAFE becoming more and more dollar driven. This could make managers fairly ruthless in what they are doing and they could actually suffer a loss of flexibility in using their common sense in making decisions about things like class sizes because they are so concerned about cost pressures.

A number of the nominated colleagues commented on the perception that the Heads of Studies spent a disproportionate amount of time on administrative matters instead of on their educational leadership role:

> Many managers in TAFE (particularly at senior levels) do not get around the colleges enough to see what's going on.
>
> Managers work off crisis management most of the time with the paper work tying them down to the detriment of meeting educational goals and objectives.
>
> The main problem for managers within TAFE is their concentration on administrative matters at the expense of keeping up to date with what is happening educationally.

> Managers can no longer afford to be involved in the operational paper work that can be handled by lower level managers.

THE MANAGERS

Future TAFE managers need the 'soft' or 'people' skills that have been described by many management theorists (Feuer 1988; Randell 1993; Smith & Hutchinson 1995) according to the participants in this study. Words used by participants to describe these managers included integrity, honesty, sincerity, humbleness, courage, openness, trust, empowering, supporting, developing, empathetic, flexible, team centred, adaptable, encouraging, approachable, fair and ethical. Specifically it was said that:

> There are a number of strengths required by managers if they are going to lead TAFE through the changes that are currently and constantly occurring. These include courage - the courage of your convictions, the courage to speak, the courage to be different, the courage to be non-conforming, the courage to lead when it would be easier to sit, the courage to confront issues when it would be easier to just ignore them. Judgement is also important - judging people, judging the situation, seeing the situation and coming to conclusions from it readily. Being able to see the way forward is another important strength. Managers must support others to make decisions - they must empower them to run with the decisions and the carry them forward. Above all managers must care - they must care about the people and the community they are serving.
>
> The management style has to be less directive and more collaborative with the best results coming from people who are working as a team, who are working in cooperation, who have the same sense of objective about where they are trying to go.
>
> A management style that emphasises ownership and empowerment rather than autocracy is required otherwise staff work every way they can to buck the system. Managers need to be out there with the staff, discovering their potential.
>
> Managers need to be informed about what is happening in the training market. They need a good education and understanding of education and the trends in education. Managers have to be flexible and ready to change with the times.
>
> Managers should be there to support their staff.

DISCUSSION

TAFE is operating in an unstable, uncertain environment with demands from the government and the community for a more flexible, competitive and cost effective vocational education and training system driving organisational changes.

There was some apprehension exhibited by the participants in this study about many of these changes with the feeling that they could compromise TAFE's traditional role in the vocational education and training sector - a role that has provided 'second chance' education to many who would otherwise miss out.

These changes were linked to economic rationalism - a model seen as bringing private sector managerialist procedures to the public sector in an effort to enable stricter accountability for public funds.

Budgetary constraints resulting from this move were seen to restrict the ability of managers to operate in a flexible and proactive way. It was felt by some that the new TAFE operating environment did not support risk takers but instead engendered a fear of breaking the rules and regulations that still dominated the system.

Positive outcomes from the changes in TAFE were perceived to include a shift to a customer and quality focus, the implementation of new technologies and a recognition that access and equity should be part of the mainstream education system.

While the participants in the study were certainly concerned with the changes occurring in TAFE they also felt TAFE was strong enough to survive the movement to a competitive environment.

They recognised the need, though, for TAFE managers to become more strategic in their problem solving and decision making. This movement, they felt, was difficult given the current reporting requirements - requirements that necessitated Heads of Studies be involved in administrative and operational functions at the expense of higher level duties.

Sinclair and Marriott (1990) found the introduction of managerialism in public service organisations promoted bureaucratisation and centralism through an increase in control over budgets and accountability. For organisations trying to become more responsive to their external environment this poses a huge problem. This problem was related to management styles by Ozga (1993) who asserted that the demands of the external environment were causing anxiety and distrust within educational institutions making it difficult to establish the supportive culture needed within these organisations. Managers, in this case, use traditional, authoritative styles instead of the transformational styles that are linked with effective leadership.

These 'traditional' management styles, though, are not relevant in the current TAFE climate where people are being asked to cope with enormous changes. When participants in the study were asked about the management styles needed within TAFE they responded by outlining the manager described by Rosener (1990), Limerick and Cunnington (1993) and Smith and Hutchinson (1995) as the interactive, collaborative individual. That is, the executive in this study perceived that a transformational manager was needed in TAFE to cope with the changes occurring in the organisation.

IMPLICATIONS AND RECOMMENDATIONS

The ability for managers to use the transformational style of leadership is very much determined by the structure, culture and climate of the organisation in which they manage.

TAFE, though, is still hierarchical, it is still dominated by rules and regulations and, according to the participants in this study, it is still inflexible and unsupporting of risk takers who wish to operate in a proactive way. Many of the managers actually appeared stifled in their management style expressing a concern with what they could and could not do in the current climate. Powell (1993, 54) also recognised this conundrum and believed 'in many settings, individuals cannot deviate from traditional standards of behaviour without taking considerable personal risk'. It is the level of personal risk that concerns some of the managers in this study.

The belief that budgetary constraints could force managers into a management style more reminiscent of the traditional authoritarian style is also an important concern.

If the TAFE organisation is going to rely on its managers to successfully lead it through the coming years then these issues have important implications. TAFE, as an organisation, must be prepared to accept and support the transformational management style if it is to become an accepted way of managing.

A fundamental cultural change must accompany the structural changes currently being implemented to enable managers to cope in the new environment. The paradox between the necessity for a creative culture that supports transformational management styles and the need for increased accountability must be addressed. While the participants in this study believe the transformational style of leadership will address this need their concerns for more flexibility within existing structures must be acknowledged.

A perceived lack of knowledge of TAFE's strategic direction was another constraint on managers identified in the study. Concern was expressed with the lack of knowledge of a vision for TAFE and how different its future role would be compared to its traditional 'social' role. Arguments and viewpoints abound in the literature about the direction TAFE should be pursuing and how this direction is going to impact on the role of TAFE in vocational education and training. This direction should be clarified and communicated to TAFE personnel who can then direct their energies toward achieving established goals.

The lack of knowledge of strategic direction appeared to impact directly on the ability of managers to be truly transformational. Parry (1996, 3) remarked that too often managers are tied down fighting fires that erupt on a daily basis at work to be able to think clearly about where their organisations are going. This prevents them from enunciating and communicating the future to others. This study identified the need for Heads of Studies to become less involved in the day to day operational running of their colleges and more involved in the educational planning for the future of TAFE.

TAFE management needs to examine why this transition is so difficult to make. Why, if people agree the Heads of Studies should be divesting themselves of low level administrative tasks, do they continue to perform them? Is it, as some suggest, a fear of ministerials and a concern with political correctness or is it a lack of appropriate systems within TAFE tying managers down with the paper work at the expense of concentrating on 'bigger picture' issues? The expectations placed on these people must be examined to determine if there is a conflict between their perceived and actual roles.

The results of this study indicated that all participants would like to see transformational managers in TAFE. Many, though, appeared disillusioned with TAFE's current direction and revealed their need for support, encouragement and development. Managers need to build the confidence of the people they work with as well as challenging the rules and regulations contributing to the inflexibility of TAFE. In this way they will assist their staff in becoming proactive and change oriented - skills necessary for survival in the push to a more competitive vocational education and training system.

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Learning and assessment issues in apprenticeships and traineeships

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1. INTRODUCTION

Evaluating on and off-job approaches to learning and assessment in apprenticeships and traineeships is an ANTA-NREC funded project that is administered by the NCVER. It is one of a suite of eight research projects that will form the basis of a substantial body of knowledge culminating in an NCVER report to be available late in 2000.

The purpose of this study is to evaluate the learning and assessment experiences of apprentices and trainees in order to identify areas that pose particular challenges and to make recommendations about approaches to best practice.

The specific objectives for the study are to:

- Identify what different stakeholders in apprenticeships and traineeships expect apprentices and trainees to learn as part of their contracts of training.
- Identify and analyse the different approaches to learning and assessment that can be undertaken by apprentices and trainees as part of their contracts of training.
- Evaluate the extent to which these different approaches to learning and assessment contribute to the learning goals and needs of apprentices/trainees.
- Evaluate areas where improvements might be made to learning and assessment practices and the strategies and interventions that are required to bring about change.

The study involves a range of methods that aim to collect data from a broad range of stakeholders. Data collection involves focus groups, case studies and a national survey.

Focus groups of key stakeholder (State Training Board Representatives, ITAB/industry representatives, VET curriculum staff, teachers and trainers) will be held in each state and territory. These will establish key issues relating to expectations about the nature of the learning that should be promoted in apprenticeships and traineeships. They will also examine the impact of these expectations on approaches to learning and assessment.

Case studies will be conducted at 20 selected sites that reflect a range of industry areas, modes of delivery and type of employment contract. These will be used to collect data from a range of people including apprentices and trainees, VET teachers and trainers, HR managers/supervisors, group training scheme personnel and host employers.

A national survey of all apprentices and trainees enrolled in two specific qualifications will also be conducted. The survey will map different approaches to assessment and learning from the apprentice/trainee perspective, including their views about most effective ways of learning.

2. LITERATURE REVIEW

The results of the literature review show that entry level training policies are directed to providing training for people entering the workforce and promoting achievement of qualifications up to and including Australian Qualifications Framework (AQF) level 4 (Lundberg 1997:3). Apprenticeships and traineeships are a key component of government policies aimed at increasing the quality and quantity of entry-level training and have been the focus of considerable change and debate during the implementation of training reform over the last 10 years. Issues relating to participation rates, industrial relations, and wages policies have all received significant attention during the reform period (Finn 1991, DEET 1991, Sweet 1995, Kemp 1996, Lundberg 1997). Issues relating to learning and assessment within apprenticeships and traineeships, however, have not received the same attention. Because apprentices and trainees spend most (and in some cases, all) of their time in the workplace, this is a primary learning site for both apprentices and trainees. In the workplace, learning and work can occur simultaneously - that is, it is learning through work as well as learning at work (Seagraves and Osborne 1997).

The extent and structure of the workplace learning undertaken by apprentices and trainees is shaped by a range of factors including the size of the enterprise (Smith et al 1995), the nature of the work undertaken in the enterprise (Field 1997; Baker and Wooden 1995), the links that exist between the enterprise and the formal VET sector (Guthrie and Barnett 1996), and the degree to which the specialisation of the enterprise coincides with an area of VET provision (Billett and Cooper 1997:12).

Potentially, the workplace can offer apprentices and trainees a "rich" learning environment. In a study of housing apprentices Harris et al (1998: 151) found that the on-site learning environment makes a valuable contribution to the development of apprentices as tradespersons and workers and the study explored in detail the nature of that contribution.

The workplace however cannot be assumed to be an "ideal" learning environment. In general, it is accepted that on-job learning aids transfer (Smith, 1998) and is more 'authentic' (Billett, 1994). However, on-job learning also has some significant disadvantages. In many instances the goals, methods, ideals and strategies of business enterprises are very different from those of learning institutions. The former is concerned with productivity and survival, the latter with learning and professional growth. Thus an enterprise (especially a small business) is not primarily concerned with learning, and in particular the sort of learning that might lead to qualifications (Harris, Simons and Bone 2000).

Regardless of the model of training adopted, the literature suggests that, for apprenticeships and traineeships, there are a number of critical features that should be present in contemporary contracts of training. These features support the ultimate goals of apprenticeships and traineeships - that is the development of work related and employment related skills.

- **a breadth of experience** and exposure to authentic work which enables the apprentice and trainee to gain a view of their current and future roles and the skills, knowledge and attributes necessary to fulfil current and future occupational expectations.

- **a depth of learning** which does not promote the continual dichotomy between theory and practice but which rather promotes

> ...a framework whereby apprentices [and trainees] have the opportunity to develop and apply their theoretical and conceptual knowledge in the work situation and to further the capacity to think critically about practice

- **interactions and interpersonal relationships** where apprentices and trainees have opportunities to discuss their work with others. This interaction provides the basis for facilitating apprentices and trainees to "make the connections" between what they have learned and the implications it has for their work.

- **attainment and progression** not only in regard to the attainment of national qualifications but also in the development of a "platform" which will encourage apprentices and trainees to

> ...conceptualise qualifications as platforms for transfer to further learning and attainment rather than as points where learning terminates

- **communities of practice** built around partnerships between employers, training providers and apprentices and trainees which recognise the mutual, but sometimes conflicting interests that can be brought together through a contract of training. (Fuller and Unwin 1998)

3. PRELIMINARY FINDINGS

To date, 4 focus groups have been conducted. This section contains a preliminary attempt to identify some of the issues that have arisen from those focus groups. The results of the remaining

4 focus groups will be used to verify, enhance, expand or challenge the themes that have currently been identified.

Thus far, the results of the focus groups have been fairly uniform, both in the range of identified issues and also the emphases on what have been considered crucial factors impacting on the quality of learning and assessment. A summary of issues appears in the table below. Without wanting to pre-empt further findings of the full project, there are some emerging issues we would like to tease out a little, as likely pointers to areas worthy of deeper investigation in the case studies.

Employers' Attitudes have been variously reported as covering a range from committed to trainee/apprentice learning, through to motivated purely by financial incentives. At one end of the scale, the employer is committed to establishing a workplace culture in which learning is likely to thrive. These enterprises see training as a form of organisational development. At the other end of the spectrum, the employer is involved in the apprenticeship or traineeship, firstly for what "an extra pair of hands" can do for the business and what additional funds an extra pair of hands represents. In this scenario, the trainee or apprentice is more likely to be expected to "fit in", learn what they can under their own steam and will be expected to undertake the off-job component of the training in their own time. In these scenarios and all points in between, the employer considers learning the workplace culture to be a very important "competence". What model of workplace culture the trainee/apprentice witnesses, experiences and absorbs is, of course, crucial to what and how s/he learns all the other skills and competences.

Skills Development has been emphasised particularly as an issue for traineeships. These are perceived as being more in the nature of a "taster", than a thoroughgoing skill development program. Industries with a well-established tradition of apprenticeships seem to be more likely to avoid traineeships. These are seen as contrary to maintaining the standards of vocational practice and not providing long lasting, high quality skills to the industry.

Assessment provides a wealth of opportunity for confusion of roles, especially with regard to the training provider compared with the employer. There was a general perception that enterprises saw assessment as the role of the provider (RTO). Problems might then arise when assessors have little communication with or understanding of the structure of the workplace in which they are required to assess. Those few enterprises which train there own employees in Workplace Assessor programs are likely to be large enterprises who are RTOs in their own right or enterprises where a training culture already exists. A common concern was the perception that many enterprises want skilled workers but they do not want to provide opportunities for skills training.

Roles of the Stakeholders seem to have become more blurred with the advent of New Apprenticeships, Traineeships, Training Packages, User Choice and other "innovations". Whose role is it to drive training? Who provides training? Who assesses training? Who pays for training? Whose role is it to ensure quality of training? Who is the "client"? Often concern was expressed in the focus groups that roles are not understood as clearly as they need to be to ensure quality of learning and assessment across the Traineeship and Apprenticeship systems.

Funding Issues	• The impact of financial incentives on the employer's attitude to training. • The impact of funding levels influence of the quality of program delivery.
Enterprise/Industry Related Issues	• The impact of enterprise characteristics on the ability to support training (eg. size, complexity, business). • The impact of a pre-existing training culture. • The impact of an enterprises commitment to training. • The relationship between training and organisational development. • Impact of skills needed by the enterprise and broader training.
Learner Related Issues	• The need to distinguish between apprenticeships and traineeships. • The influence of traditional values in apprenticeships. • The innovative nature of traineeships. • The role of traineeships as a 'taster', 'probation' or reintroduction to training. • The need to treat adult learners differently from younger learners. • The role of up front assessment for adults.

The Role of Secondary Schools in VET	• Possible differences between schools' and industry's view of assessment and training. • The relationship of secondary providers and TAFE.
Metropolitan – Rural Issues	• The social impact of apprenticeships and traineeships in rural areas. • The role of apprentices in creating an employment market – apprentices often become employers. • The role of traineeships in returning people to work.
Assessment Issues	• Concerns regarding the validity of workplace assessment • Little evidence of 'terminal assessments' being undertaken by workplace assessors • Concerns regarding the validity of simulated assessment
Learning Issues	• The importance of 'workplace culture' as a core learning outcome
Elements of Good Practice	• Detailed training plans • Employer commitment to training • Access to a breadth of experience • Flexibility • The need for a balance of on and off-job training
Provider Issues	• Group Schemes • Ability to provide a broad experience base • TAFE • Image • Impact of broadened scope of activity with workplace assessment and other reforms

4. CONCLUSION

Thus far, the focus groups have consistently acknowledged the benefits that traineeships and apprenticeships deliver to individuals, enterprises and industry. They have identified a number of issues that will be further investigated through case studies and a national survey of apprentices and trainees.

Three factors have emerged from the four focus groups conducted to this point:

- The extent to which enterprises view training as a valuable activity within their operations.
- The extent to which a true partnership exists between the trainee, employer and training provider.
- The ability to achieve a suitable balance between on- and off-job training and assessment.

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How owner/managers decide to participate with New Apprenticeships for the first time: A grounded theory approach

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INTRODUCTION

This paper presents work-in-progress findings of a qualitative study into small business decision-making experiences with New Apprenticeships. The problem of small business participation with New Apprenticeships is empirically investigated from an owner/manager and organisational perspective. Using a grounded theory research approach, the study focused on contextual and process elements as well as the action of key players associated with participation - elements that have been largely omitted in previous studies of apprenticeships and traineeships so far. The paper makes three principal contributions. First, drawing on the rich data of twenty-one case studies over three industries: information technology, recreation and childcare, the paper generates a grounded understanding of the decision-making process. Second, the grounded theory adds substantive content to our understanding of the central role played by owner/managers, their organisational context, and the processes they enact. Third, a process model, along with a set of seven propositions portraying the dynamic nature of the process, is advanced.

The overall aim of the study was to broaden and strengthen our understanding of New Apprenticeship participation by emphasising research focussed on the dynamic nature of the participation process. More specifically, efforts were directed towards opening the "black box" and providing a story that explains how and why contextual conditions and participation tactics interacted and worked together to affect participation outcomes. Furthermore, the paper provides an alternate framework within which researchers might address a more complete picture of New Apprenticeship participation. A position is taken conceptualising participation as a *process of organisational innovation*, thereby necessitating an emphasis on the dynamics of introducing something new and the impact this has on individual decision making. In developing this argument, the author has used an examination of social constructionist and innovation theory to define New Apprenticeships as an innovation in training process technology (Rowlands, 1998). This conceptualisation was used to develop a unified framework involving the concepts of technology innovation and decision making to analyse several case studies of training process and organisational innovation. Drawing from these case study analyses and related literature, a number of propositions are developed for consideration.

THE PARTICIPATION PROCESS - SUMMARY OF FINDINGS

In this section I review the nature of New Apprenticeship participation processes in smaller firms in three emerging industries. In Rowlands (1999b), I presented a conception of New Apprenticeship participation as a set of processes, itself intertwined with other decision processes in the firm, and influenced by a dynamic set of contextual elements. In summary, the three interacting processes identified include:

a. **The psychological commitment process:** a process of incubation in which managers' commitment to New Apprenticeship development fluctuates with changes in information, contextual conditions and ongoing decisions in other areas. I identified various types of contextual influences on this process that I labelled as informational, sensitising, inhibiting, and impetus elements depending on the timing and nature of their influence on ongoing commitment. Impetus elements are required to set in motion the financial justification process.

b. **The financial justification process:** the process of investigation and analysis about financial incentives and costs involved for New Apprenticeship participation. In most cases this involves informal justifications emphasising wage/labour costs, potential payroll savings, and the impact of government financial incentives. However, feasibility factors such as resources (time mainly) and fit with current operations are also necessary components of this process. Financial justification is also influenced by contextual elements like the other two processes and interacts with operational choice and psychological commitment in various ways.

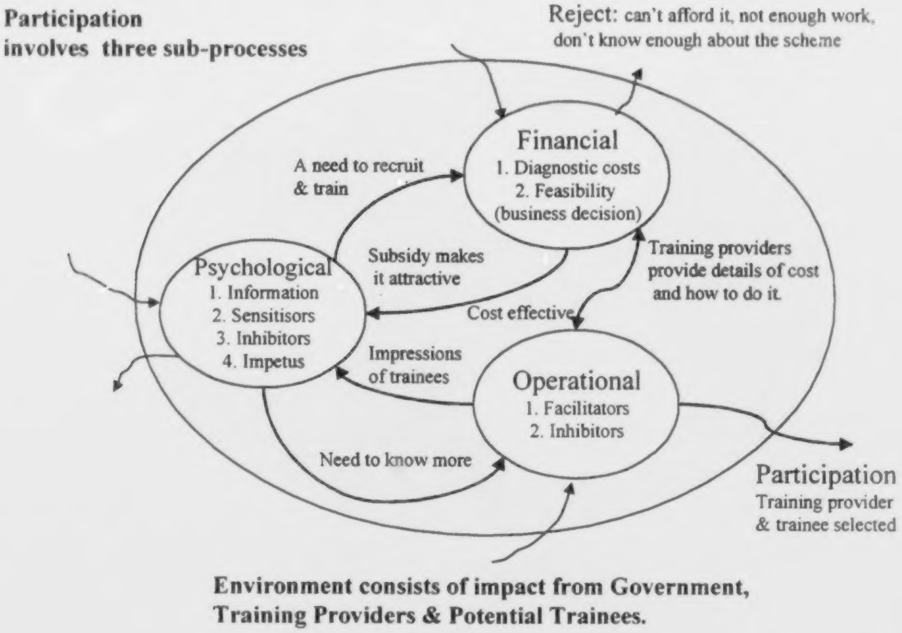
c. **The operational choice process:** a process of influence involving the selection of trainees and interaction with training providers. This process may itself be facilitated or interrupted by ongoing contextual influences. The information generated by the operational process may affect psychological commitment directly and may also be used in financial justification.

The process represented in Figure 1 provides one way of examining the organisational innovation decision making process around New Apprenticeships. By taking into account the existing firm-level context and owner/managers' intentions for and actions around New Apprenticeships, the nature and origin of the innovation, as well as the consequences of these changes, participation can be anticipated, explained, and understood.

While participating and non-participating firms both 'participated' with New Apprenticeships in some form, their experiences differed significantly. The comparative analysis method of grounded theorising - which allowed contrasting participants and non-participants on a common set of issues (see Table 1) - suggest that these differences can be attributed to variations in the participation process and the idiosyncratic nature of each firm, the organisational context, as well as intentions and actions of key players around the participation process.

The model developed here does not imply that New Apprenticeships *per se* cause process variations. Rather, as shown in Figure 1 and described by the seven propositions, it indicates that participation emerges from particular interactions of organisational context, owner/managers' intentions and actions, and the traineeship technology. The research strategy adopted was successful to the extent that it yielded a rich structure of participation related issues clearly relevant from the standpoint of the owner/managers. What is impressive is that the investigation identified some unexpected dynamics of participation from the owner standpoint. For example, the owners were not able to identify the moment of 'commitment' or the main reason for participation; and secondly, owner/managers believed that negotiations with training providers and attempted dealings with government departments were more influential in their 'decision making' than were the characteristics of the traineeship scheme itself.

Figure 1. Research Model:
The participation process - a set of three interconnecting sub-processes


Participation involves three sub-processes
Reject: can't afford it, not enough work, don't know enough about the scheme
Financial
1. Diagnostic costs
2. Feasibility
(business decision)
A need to recruit & train
Subsidy makes it attractive
Training providers provide details of cost and how to do it.
Cost effective
Psychological
1. Information
2. Sensitisors
3. Inhibitors
4. Impetus
Impressions of trainees
Operational
1. Facilitators
2. Inhibitors
Need to know more
Participation
Training provider & trainee selected
Environment consists of impact from Government, Training Providers & Potential Trainees.

DISCUSSION OF FINDINGS AND THEORETICAL IMPLICATIONS

Building on existing research and advancing knowledge about small employer involvement with government training initiatives posed a considerable challenge because a number of conceptual and methodological problems are involved. Three conceptual difficulties and one methodological problem, all of which impede the development of process knowledge in the field of business participation with structured on-the-job training, are addressed below.

1. First, the study reveals the need for broad interpretation of the term *participation* with respect to researching Australia's New Apprenticeship system. It suggests that *participation* be conceived as a complex process involving multiple actors with different backgrounds, skills, interests and motivations, all interacting with multiple contextual conditions. A process that begins (in a temporal sense) with the introduction of a new idea for training and skill formation and continues until a trainee is registered and employed by the firm.
2. Second, the study presents convincing evidence that the issue of participation can best be conceptualised as a multi-dimensional construct which should take into account social issues, supplier influences (including the process of communication and signalling of a new training initiative), knowledge and learning requirements, as well as business and economic factors.
3. Third, it rejects the notion of an owner/manager making an objective 'decision' based on characteristics of the scheme itself involving cost and benefit. Clearly, conditions external to the firm, other ongoing issues within the firm, and owner/manager attitudes are likely to be equally, if not more important, in the 'decision making process' and will impact on the participation outcome in each situation.
4. Finally, and most importantly, this study develops a process model of New Apprenticeship participation along with a set of seven theoretical propositions which portray the dynamic nature of the process.

Next, I address and discuss each of these theoretical findings in greater detail.

TOWARD A BROADER DEFINITION OF NEW APPRENTICESHIP PARTICIPATION

A first conceptual dilemma in the conduct of any training initiatives study is related to the definition of the term "participation" itself. This study has shown that it is preferable, from a research standpoint, to adopt a broad definition which reconciles existing views of participation as a technical, economic and managerial activity. Specifically, it recommends that activities related to the 'decision making' process as well as those preoccupations related to the issue of social meaning, organisational change and innovation, relationship marketing, communication strategies, and management of consequences all be considered. The findings of this report add some freshness to the definition adopted in this study by clarifying the nature of the issues and challenges most likely encountered during the participation process. In this light, Table 1 outlines the issues and related challenges encountered in the twenty-one cases which formed the object of this study.

Based on evidence presented in this study, I define New Apprenticeship participation as a complex and dynamic process where owner/managers are likely to face, more likely simultaneously (parallel sub processes) than sequentially, issues such as: (1) accumulating knowledge and information, (2) forming and applying attitudes towards young people in general, (3) viewing young, cheap, trained workers as a form of business survival strategy, (4) defining and confirming cost & benefits, (5) consideration of feasibility and impact on the firm, (6) finding out more about how the scheme works, and (7) selecting the training provider and trainee. Taken all together these issues confirm that the outcomes of the participation process tend to be business related. For instance, they are aimed at saving money, acquiring new skills for the firm, gaining new knowledge, training a worker specifically for a job, forming simple business relationships with training providers, overcoming knowledge barriers, fitting a trainee in with the organisation, and about trialing something new to a firm. The outcomes clearly accord with an economic / business perspective, yet the process of participation is multi-dimensional, involving social meaning, change, innovation and overcoming knowledge barriers.

Table 1. Issues and Challenges Encountered in the 21 SME Participation Cases

Participation Issues	Examples of Participation Challenges
Psychological: *developing a commitment to* **New Apprenticeships:-**	
Acquiring knowledge about how to do it.	• Couldn't find out anything about the scheme from government • Negative and pre-conceived ideas about government labour market schemes • Newness of the concept • Lack of information & mis-information
Attitudes towards young people in general	• Negative attitudes towards young people as workers • Willingness to train on the job • Giving young people a chance in life • Prior experience with government training schemes
Business survival	• Business downturn due to government cutbacks • Countering the mobility of the labour market • Acquire new skills and diversifying services
	• Overcoming resistance from staff • Dealing with government bureaucracy
Financial: cost and financial justification:-	•
Defining and confirming cost & benefits	• Finding out about subsidy & training wage arrangements • Recruitment – can we afford an additional employee, do we have enough work to do? • Saving money – a source of cheap labour
Consideration of feasibility and impact on the firm	• Finding time to train properly on the job • Training up someone specifically for the job • Resistance to change from existing workers • Obtaining the approval of the centre owner • Fitting a trainee in with organisational practices
Operational: making choices:-	•
Finding out more about how the scheme worked	• Overcoming knowledge barriers • Finding a suitable and registered training provider locally • Getting help from training providers • Dealing with delays from government departments
Selecting the training provider and trainee(s)	• Forming business relationships with training providers • Letting training firms and group training companies handle recruitment • Dealing with young people • Being influenced by young enthusiastic people

RECONCILING AN ECONOMIC CONCEPTUALISATION OF THE PROBLEM

A second prickly issue when studying government training initiatives participation is in establishing an accepted conceptualisation of the problem itself. There is no consensus on The problem and how it is defined and conceptualised. Cuban (1997) raised the issue of how problems are defined and who does the framing because in this instance, we have another Federal program - New Apprenticeships - being promoted as a reform (or solution) to a problem defined by policy makers and experts. The problem then, according to Cuban is not an objective rendering of a situation, but is socially constructed. Rather than dwell on how the problem has been framed and which institutions do the defining, this paper argues that there are other key perspectives, or 'ways of seeing' that have been absent from the examination of New Apprenticeships so far.

This study reinforces the adoption of a multi-dimensional view of New Apprenticeship participation where both outcomes and process criteria are considered. Importantly, this study supports those who have advocated the consideration of multiple issues (Hommen, 1997). For instance, participation with trainees as evidenced in Table 1 is seen to be a mix of issues and a dynamic process.

The findings discussed in Rowlands (1998) suggest that, based on the evidence in the work-place training / apprenticeship literature, they reflect the fact that differences in intentions, processes, and contexts around the participation with New Apprenticeships have been largely overlooked by research that seeks invariant outcomes from training expenditure. The framework proposed here is different from existing frameworks on enterprise and apprenticeship training (*c.f.* Hayton *et al*, 1996; Dockery et al, 1997; Burns, 1999), which tend to share three characteristics: (1) they consist of causal models, based on the deterministic assumptions of either a technological or organizational imperative (Markus & Robey: 1988), and hence discount the importance of human intentions and action in shaping the adoption and use of technology; (2) they are variance models (Markus and Robey, 1988), and hence do not adequately capture the contextual and processual issues that are fundamental to examining organizational change (Pettigrew, 1990); and (3) they focus primarily on factors of economic cost & benefit, and hence do not examine, over time, the dynamics and interplay of social influences, business context, and individual owner/manager action.

In this particular study, it was made clear that a sociological perspective approaching participation as a multi-dimensional construct locally defined by the owner/managers represents a more realistic approach than more common attempts to find objective criteria such as training or economic benefits. In short, this research studies the process of participation from the viewpoint of the owner/manager.

PARTICIPATION DECISION MAKING CRITERIA

The third prickly conceptual issue is related to the notion of identifying a clear set of objective reasons for participation decision making. As stressed earlier in Rowlands (1999a), training participation research has resulted mainly in a set of managerial prescriptions which, taken altogether constitute the "ideal" training participation scenario. This study presents twenty-one independent New Apprenticeship participation cases which strongly support the contention that the notion of an objective rational decision making process, in this context, does not apply.

My research has, in fact, proceeded initially not from decision so much as action, for example, *The Participation* with New Apprenticeships for the first time. I assumed decision - that some identifiable moment of commitment inevitably preceded action. In other words, if an owner/manager of a SME *did* something, he/she must have previously *decided* to do so. Surprisingly, the search for the seminal decision did not prove fruitful, and could not be identified.

The important conclusion, is that *decision* is an artificial construct, a psychological one that imputes commitment to action. For individuals, as I have previously reported (Rowlands, 1999b), in many of the non-participating cases commitment to the concept does not necessarily precede action; and conversely, among participants, whatever commitment to the concept of New Apprenticeships that preceded participation (action) can be vague and confusing (and difficult to isolate and describe). Furthermore, not only are 'decisions' difficult to pin down in practice, but that the attempt to do so distorts our perceptions of how action really occurs in organisations (Langley *et al*, 1995).

As a consequence, this paper argues that researchers interested in studying New Apprenticeship participation cannot use preconceived or *a priori* decision making constructs or criteria. At best, they can use some of the established dimensions of decision making such as those used in this report e.g., the issues, challenges, and outcomes listed in Table 1 to probe key informants.

In summary then, approaching and defining *participation* as a multi-dimensional and dynamic construct locally defined by owner/managers represents a more realistic approach than more common attempts to find objective decision making criteria such as the alleged training benefits, reasons of economic cost and benefit, or specific characteristics of a firm. Indeed, all twenty-one cases had similar characteristics. The research design specifically chose firms of similar size, industry, location and age. In addition, all cases had initially unfavourable contextual conditions surrounding the participation process such as: the concept was new to most, and very few had experience with formal on-the-job training schemes. Therefore, it appears that owner/managers are likely to have to cope with a certain number of challenges and unfavourable conditions in all situations. Notwithstanding, approximately half the projects examined were 'successful' participants, the other half rejected participation. But how do certain firms, exhibiting similar characteristics in terms of size, industry, location and age, and all experiencing similar unfavourable conditions, differ in their participation? Answers to this question are provided in the following section.

DYNAMIC NATURE OF THE PARTICIPATION PROCESS

As stated in the first section, this study set out to generate a process model that captured the dynamics of the participation process. A lack of established grounded theory necessitated the generation of a number of new perspectives and empirical insights adding to the existing body of knowledge in the field of industry involvement and government sponsored work-place based training schemes. Indeed, the theoretical propositions developed in this study define a preliminary set of laws of interaction among issues and between issues and participation outcomes.

I conclude this section by presenting the theoretical model (see Figure 1) and its set of propositions below.

Proposition #1 Social Construction

First, a social constructionist view of the world takes as the analytic unit the individual embedded in a social context e.g. the owner/manager of a small firm. In line with this theoretical perspective, the participation process involving New Apprenticeships within small firms is represented as a dynamic process where owner/managers socially construct a positive attitude toward new apprentices, anticipate and overcome the challenges ahead, and recognise the presence of and capitalise on business opportunities (Proposition 1).

Proposition #2 Non-structured decision making

Second, evidence from the cases supports the general contention that there is no distinct participation decision, but rather participation with New Apprenticeships represents a non-structured decision making process (Proposition 2). As described earlier in this paper and summarised in Table 1, taking on a trainee for the first time is not an objective decision made by a single person evaluating the individual merits of the scheme. The full understanding of the process requires placing traineeships in their organisational and environmental context, with the process influenced by events outside the control of the firm.

Proposition #3 Participation involves a set of three inter-locking processes

Third, multiple examples in the cases provide support for the related contention that participation does not follow a strictly sequential decision making process as implied in some of the literature. For instance, New Apprenticeship participation involves several interacting sub-processes (Proposition 3), different in nature that need to be distinguished from each other. These processes are themselves intertwined with other decision processes of the firm, and influenced by a dynamic set of contextual elements that interact with one another over time. Proposition 3 also suggests that a better representation of the process is as a set of three parallel, partially iterative, and interlocking processes.

Proposition #4 Knowledge barriers

Fourth, knowledge (or conversely lack of knowledge) about New Apprenticeships is a key facilitator or inhibiting element in the process (Proposition 4). As an organisational innovation, New Apprenticeships require some measure of organisational learning if they are to be adopted. For participation to occur, the employer must absorb a daunting changing lexicon, new training techniques and on-the-job assessment procedures. The perceived complexity of obtaining technical knowledge or know-how in these areas represents a significant knowledge barrier to achieving an overall understanding of the benefits of participation.

Proposition #5 Suppliers of Training as Mediating Institutions

Fifth, evidence from cases support the related contention that overcoming the knowledge burden on would be participants leading to a successful participation outcome is more likely if supported and facilitated by mediating institutions such as suppliers of training or group training companies (Proposition 5).

As an indication of this phenomenon, the efforts of training providers in being able to step-in and provide information and demonstrate know how about the scheme were significant factors in the formation of a simple but effective training partnership with each participating small firm.

Proposition #6 Positive Psychological Commitment

Sixth, a psychological commitment to hiring young workers and a positive predisposition towards training is essential and precedes participation; otherwise the process terminates and does not proceed beyond the initial idea or proposal stage. (Proposition 6). The findings confirm that owner/manager's beliefs regarding a course of action are mainly influenced by the process by which managers develop a psychological commitment to one or more facets of the scheme. As a first indication of this phenomenon, the decision to participate by Case #1 and Case #21 were influenced by the 'enthusiasm shown by the young kids'. Conversely, as another example, the process leading to rejecting a trainee in Case #2 was strongly influenced by experiences of a trainee in a previous employment.

Proposition #7 Financial Considerations & Need to Recruit

Seventh, financial considerations such as profit seeking and government financial incentives are highly influential (Proposition 7). The report acknowledges that cost and benefit are important factors, but not the sole factors that come into play in the decision making process.

CONCLUDING COMMENTS

In conclusion, I have argued that New Apprenticeship participation can be viewed as a socio-technical process and thus can be more fully understood as such. I have proposed a broader definition of participation by clarifying the issue as a multi-dimensional construct, by demystifying the notion of an "objective" decision making process, and by developing a set of theoretical propositions describing the nature of the participation process. Any study involving the uptake of government training initiatives is a worthy arena in my view, and I hope this paper will provide a baseline from which to proceed further with the study of New Apprenticeship participation.

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The impact of VET research

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INTRODUCTION

Previous studies have shown that the relationships between R&D and its decision-making outcomes are almost always complex and not easily discerned. The idea of a one-to-one relationship between research studies and decision-making generally has been discredited, although individual studies may have an impact. The R&D system's major contribution to decision-making may be through the 'big ideas' which are in good currency, often with a considerable time lag. There are many sources of R&D, many potential uses for R&D in decision-making and many potential pathways between researchers and decision-makers.

The seventeen case studies considered in this paper are complementary to the book which was published in 1998 by the NCVER (Selby Smith, Hawke, McDonald and Selby Smith 1998). They grew out of a consultancy advertised by ANTARAC in April 1996 to 'review the evidence for and where possible evaluate the extent of influence of research in VET'. The research team proposed, and the funding body accepted, that the research question should be examined from five complementary perspectives: a review of relevant literature; a symposium; quantitative studies; case studies; and a reference to overseas experience.

A consistent approach informed the different perspectives (see Selby Smith et al 1998, chapters 1 and 2), arguing that analysing the extent of R&D's influence on decision-making in VET, and the pathways through which it operates, necessitates consideration of three areas: decision-making; R&D; and the linkages between them. Also, a distinction was drawn between 'use', (whether the R&D had served a particular purpose) and 'influence' (whether the R&D had made any difference to the decision which was taken). The relationship was considered primarily from the perspective of decision-making and action.

A purposeful maximum variation sample was selected, rather than a 'representative' sample. This enabled the project to capture and describe 'the central themes or principal outcomes that cut across a great deal of participant or program variation' (Quinn Patton 1990). Taken together, the case studies illustrate the diversity of circumstances and the variety of pathways through which R&D can have an impact on VET decision-making. Seven case studies relate to impact at the level of national, State and Territory policy; six relate to decision-making at the level of individual training providers; and four are concerned with community relations aspects. Also, case studies of R&D initiated by users were contrasted with case studies initiated by researchers. Researcher-initiated projects may be less immediately visible to decision-makers; less easy to incorporate appropriately in decision-making processes; and perhaps more likely to challenge established ways of thinking or acting.

CONFIRMATORY EVIDENCE

The Decision-making Domain

The case studies consider the importance of R&D for decision-making at each level.

Policy-making at national, State and Territory level.

Robinson's case study argues that R&D was important in establishing the conceptual case for traineeships developed by the Kirby Inquiry in the mid-1980s; and contributed to the prompt adoption of the traineeship recommendations by the Federal Government. The case study by Hawke and McDonald illustrates research's contribution to the development of an R&D strategy for VET, primarily at the national level. Selby Smith and Selby Smith illustrate the use of R&D and its significant influence on user choice policy-making in 1996 and 1997. Hawke and McIntyre's case study of research on adult and community education in NSW, which was commissioned by the NSW Board to explore participation and vocational outcomes, shows that it affected both national and State policy-makers. Tidemann's case study illustrates the multiple impacts that R&D had on the development of the 1998 strategic plan for VET in Victoria, including the maintenance of an in-house 'research intelligence'.

Policy-making by VET providers

The case studies illustrate the contribution which R&D has made to decision-making by public and private providers. For example:

i. Seddon and Clemans explored the pattern of enterprise-based research in seventeen VET providers and R&D's impact on decision-making there. They concluded that R&D 'does impact on goals and operational decision-making in VET enterprises ...[although] there is substantial variation in the extent of enterprise-based research, its character and its applications', which is 'strongly influenced by the views of research held by enterprise management and the extent to which they perceive a practical link between research activity and enterprise operations'.

ii. Creek's case study of R&D's impact on academic developments at the Murrumbidgee College of Agriculture in the Riverina, specifically the development of the Aboriginal Rural Training Program, suggests considerable use and influence. The participants certainly believed this to be so. Creek noted that the developments proved to be 'a very exciting voyage of discovery'. Of course, agriculture has a long history of R&D, linkages between researchers and users, and an export orientation to sales in highly competitive markets. The existence of the research station at Yanco was also significant in terms of Agriculture Department attitudes and the mindset of staff.

iii. Jones's case study examined the impact on decision-making in the Sydney Institute of Technology, the largest VET provider in Australia, of the development of the resource allocation model by TAFE NSW in the early 1990s. He concluded that, though it was not the originally envisaged objective, the Sydney Institute became a much more effective organisation as a result of its increased research orientation. The positive outcomes for decision-making transcended the confines of the single study which initiated the change.

iv. Sefton and Waterhouse's case study investigated a registered private provider. Use and influence were both shown to be substantial; and integral to the operation of the organisation. R&D conferred a competitive edge in contested markets.

v. The case study by Rushbrook and Clemans of Victorian adult and community education providers illustrated the capacity of a research project to broaden out as it proceeds. The project assisted capacity-building by ACE providers and enhanced their ability to act more confidently and effectively in the future.

Community Relations

Other case studies were concerned with the relationships between R&D and the wider economic, political and social systems with which VET interacts. In general, these relationships between R&D and decision-making tended to be less distinct, to be longer term, and indirect rather than direct:

i. The case study by Hawke and McIntyre concerning adult and community education in NSW included consideration of public opinion, the policy process at both national and State levels, and the activities of Senate Committees. Hawke and McIntyre conclude that, through these diverse processes, the research: "has helped to establish 'research' itself as a basis for strategic policy development, as the sector continues to manage a turbulent policy environment"; "has helped to position ACE amid the difficulties of training reform ... [and] challenge ideas that the 'vocational' should be narrowly rather than broadly understood"; and "has moved policy in new directions".

ii. Butler and Ferrier explored the wide range of equity studies which have been undertaken and why they have not had greater impact on decision-making. They conclude that in this important area "overall the impact of research on decision making is limited and narrow." They raise the question of whether, in many cases, the research was done "to be seen to be doing something" rather than with a realistic expectation of influencing decision-making.

iii. Golding's case study examines the substantial movement of university graduates into TAFE; why this was not recognised earlier; and how the research has had an impact on decision-making. "It involved a specific and fortuitous finding of university to TAFE movement in one locality and in one course in one State (Victoria), turning out, through close examination of a wide range of movement and recognition data, to be indicative of an important national phenomenon."

iv. Anderson shows that the wide dissemination of the research on student support services and amenities in TAFE through a variety of media ensured that the R&D reached interested parties at various levels of decision-making. It continued to do so over a considerable period of time.

Other Aspects

The case studies illustrate that R&D can be used for different purposes, and at different stages of the policy process. The impact of R&D is affected by the relative power of stakeholders, and the degree to which R&D evidence and attitudes have audience. For example:

i. Golding's case study shows how the assumptive worlds of key stakeholders (focussed on TAFE to university movement, and based on hierarchical views of post-secondary education), interacted with changes in the state of the world, notably the recession, which led to an increasing number of university graduates entering TAFE courses in the early 1990's (post-graduate diploma enrolments declined in universities).

ii. Butler and Ferrier argue that "the sidelining of 'equity' to only one of the four operational themes and then the identification of equity with access, limited its potential to be viewed and to act as a central organising feature of VET. Equity came to be viewed and treated largely as an afterthought".

Although R&D *can* influence particular decisions, it often tends to accumulate. Trembath stressed the multi-causal basis of much decision-making. Similarly, in Anderson's case study informants suggested that "the increased attention paid to student services issues at a state level in 1996 was not a discrete outcome of *Are you being served*?, but rather the cumulative effect of a series of reports." Conversely, Butler and Ferrier illustrate the adverse consequences for R&D's impact on decision-making when accumulation is deficient.

The timing of R&D can affect its impact; as does the willingness of both decision-makers and researchers to interact throughout the research process, so that the R&D remains relevant to the changing needs of decision-makers. In addition, the case studies emphasise that R&D can confirm decisions which previously were being considered favourably; can contribute to decisions not to act as well as decisions to act; and can consolidate the support for future decisions. Finally, the case studies reveal that the influence of R&D on decision-makers can be significant, even when the decision-makers are not aware of it.

The Research and Development Domain

The case studies illustrate the very wide range of environments within which R&D in VET can be undertaken. Also, that the various settings in which R&D is conducted are not necessarily independent: there can be alliances which serve their mutual interests; and overlapping interests, skills and experience among them. Nevertheless, the different R&D settings tend to concentrate on different types of research and attract researchers with different approaches, values and interests. This affects the R&D undertaken and the audiences to which it is communicated.

i. The case studies illustrate the wide range of methodologies, techniques and approaches which are employed in VET research.

ii. Different case studies also adopted approaches based on particular academic disciplines. This influences such matters as the problems identified, the key questions posed, the techniques adopted for investigation, the audiences with whom linkages are established and results disseminated. The appropriate research approach is related to the question to be investigated.

iii. The case studies illustrate differences between R&D studies initiated in various ways. Most of the R&D examined was initiated by users. However, on the R&D was initiated by researchers eg. Dwyer's, Golding's and Anderson's case studies. The research in each of these three case studies raised difficult conceptual and practical issues for decision-makers. They illustrate that the implications for decision-making of R&D based on an investigation of real world situations in their full complexity can be difficult to handle.

iv. The case studies underline the importance of R&D's contribution to providing new and better information. R&D can also apply existing knowledge in new ways, including for new audiences and in new settings. They illustrate, too, the human capital outputs of research. Personal contacts between researchers, practitioners and policy-makers enhance the use and likely influence of R&D processes and findings. Even solid empirical research findings and useful ideas need to be tested, tried in practice and held up to critical scrutiny.

The Linkages Between R&D and Decision-making

The idea of a one-to-one relationship between R&D and decision-making generally has been discredited; and the case studies support this view. Thus the linkages become more prominent, whether direct or indirect, immediate or longer term. The linkage between R&D and decision-making may not be "anywhere near as strong as it might be" (Butterworth in Selby Smith 1998, p 8); but the case studies show that there are many of them, nevertheless. McGaw's consideration of two national reviews of educational research, one of which had its recommendations implemented, the other not, illustrates the important role of linkages. Similarly, the importance of linkages at the level of VET providers is illustrated in the case studies of Creek, Jones, Rushbrook and Clemans, Seddon and Clemans, Sefton and Waterhouse, and Trembath,. The linkages have the potential to benefit both decision-makers and researchers. Conversely, the case studies by Butler and Ferrier, Foyster and McGaw emphasise that where linkages are weak the impact of R&D on decision-making tends to be less. The linkages can operate in varied ways.

The linkages can operate when the research study is nearing its completion, but, taken overall, the case studies support Huberman's conclusion that 'sustained interactivity' is an important means of achieving instrumental change; that both formal and informal linkages can contribute; and that linkages established during a project can have effects which transcend the single study (Huberman 1990). Tidemann emphasises that, in an organisational context, the research process itself can be a valuable opportunity to develop useful knowledge, improve research skills and attitudes, and enhance linkages. Sefton and Waterhouse argue that the research process itself can foster linkages between theory and practice, between research and decision-making; as when "providers bring R&D into their day-to-day work" and "the practical realities of their day-to-day work informs their research". There is a role for intermediaries or brokers, given the significant differences in attitudes, cultures and incentives which exist between the R&D and decision-making communities, to facilitate exchange between the producers of R&D and its potential users.

R&D can also influence decision-making indirectly. For example, Dwyer's and Golding's case studies threw doubt on prevailing assumptions by confronting them with relevant but contrary evidence; and were motivated by the desire to give a more active voice to hitherto disadvantaged participants in VET. Old habits of thought were challenged and new policies and practice rendered more likely. R&D can contribute to the research system rather than directly to decision-making; although in the long term this may augment the reservoir of knowledge from which decision-makers draw. R&D which has little effect on decision-making in the short-term may nevertheless contribute to the accumulating body of knowledge, to which ideas are in good currency and to longer term changes in public attitudes, the media and the political process. Modest initial impact does not necessarily preclude a larger impact eventually.

EVIDENCE WHICH MODIFIED THE FRAMEWORK

Overall the framework for analysing the relationships between R&D and decision-making was broadened rather than changed fundamentally by the evidence of the case studies. However, the case studies emphasise the great diversity of circumstances in which the relationships between R&D and policy, practice and performance in VET take place. Of the seventeen case studies no two are identical. In some cases R&D is used but does not have influence, as in one case cited by Trembath. In other cases R&D was both used and had influence on decision-making: for example, at the level of national, State and Territory policy-making in Hawke and McDonald, Hawke and McIntyre, Robinson, Selby Smith and Selby Smith, and Tidemann; or, at the level of individual VET providers, as illustrated by Creek, Jones, Rushbrook and Clemans, Seddon and Clemans, Sefton and Waterhouse, and Trembath. In other cases the research appeared to have little influence, as illustrated by Foyster's case study, or the outcome is more ambiguous, as in the case studies by

Anderson, Dwyer, and Golding. The impact of the research was not always exactly what had been expected initially, as illustrated in the case study by Jones. In a number of cases there was uncertainty about the precise degree of R&D's use or influence.

As Trembath's case study illustrates the implementation of R&D recommendations is rarely simple. Consultations are generally involved, often with a wide range of interests. Other factors can come into play. Compromises and adjustments to the original proposals are the norm rather than the exception. Taken as a whole the case studies reveal the dynamic, turbulent and demanding environment in which VET providers, policy-makers and practitioners are operating. Perhaps this is not surprising given the contested nature of the VET environment: between Commonwealth and State Governments; between public and private providers; and between the industry partners.

The case studies also confirm that much R&D is undertaken at provider and practitioner level, especially if a broad interpretation is given to the definition of R&D; and that it has a significant effect on decision-making there.

While the focus here tends to be on R&D's contribution to decision-making, this is not intended to imply that research should be viewed solely as a support for decision-making, especially if the relationship is conceived as narrowly instrumental and short-term. Research contributes to the reservoir of knowledge, which can assist decision-making in the future. More generally, research is not solely the servant of decision-making: it has other important societal purposes (West 1997, p 1).

The case studies, especially those by Anderson, Butler and Ferrier, Creek, Dwyer, Golding, and Sefton and Waterhouse brought students and workers into prominence as an additional set of significant decision-makers by whom R&D can be used, on whom it can have an influence, and for whom it can have significance. This was a valuable addition to the framework for analysing the relationships between R&D and decision-making which had been advanced previously.

FOUR CONCLUSIONS

i. The seventeen case studies, taken together, confirm the validity of the broad framework adopted for analysing the relationships between R&D on the one hand and policy, practice and performance in VET on the other. Typically, aspects of the decision-making arrangements, the relevant R&D system and the linkages between them are significant. The emphasis on linkages rather than on more narrowly defined dissemination increases the mutual responsibilities of both researchers and decision-makers.

ii. The case studies stress the complexity and variety of the specific circumstances through which the broad relationships between R&D and decision-making operate; and the importance of considering dynamic as well as static aspects of the relevant situation. Administrators, policy-makers and VET practitioners tend to seek clear conclusions and simple recommendations for action, whereas the case studies emphasise that R&D often reveals the complexity of real life situations. Considerable importance can attach to individual champions or sponsors. Estimates of R&D's impact on decision-making are generally subjective and incomplete; the counterfactual is often difficult to specify; and there are multiple sources of R&D, multiple destinations in decision-making, and multiple pathways through which impact can occur.

iii. In considering the relationships between R&D and decision-making the case studies complement other approaches, by providing richer detail. They illustrate the diverse ways in which a beneficial relationship between R&D and decision-making can operate, or be frustrated.

iv. The case studies raise the difficult issue of the precise boundaries of R&D, especially in relation to research skills and attitudes, and at the practitioner level. The greater the stress laid on tacit and uncodified knowledge, the more attention is focussed on research skills and attitudes, and the greater the concentration on action research, professional social inquiry and reflective practice by provider organisations and individual practitioners) the wider becomes the definition of R&D and thus its likely impact on VET decision-making.

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Police culture and the learning organisation: a relationship?

Peter Shanahan

ABSTRACT

Both police culture and learning organisations are amorphous concepts. This paper examines the basic elements of police culture and the learning organisation and looks at their relationship in the context of the South Australia Police. The question is raised, does the culture of SAPOL affect its ability to evolve into a learning organisation? If there is a relationship between the two, is police culture an impediment or advantage to the evolutionary process.

INTRODUCTION

This paper forms the foundation for my research, which is a collaborative effort between the University of South Australia and the South Australia Police (SAPOL). The project commenced in July 1997 and its general intent was to explore the relationship between police culture and learning. In order to do this I have examined the concepts of both police culture and the learning organisation. Using these concepts as my foundation I commenced my research using the resources of the 3,600 strong South Australia Police to explore my thesis that there was a relationship between police culture and learning on the way to becoming a learning organisation.

Briefly, my methodology consisted of a quantitative survey of 10% of the organisation, stratified across rank, gender and location. The return rate for this survey was 55%. The results of this quantitative survey were analysed with the use of the SPSS program. Results that showed statistical significance and significance in their description of SAPOL's culture and learning were then further analysed in order to determine if they showed any common cultural themes. I then conducted 12 in depth interviews which lasted for an average of about 1 hour, in order to further explore the quantitative results that had undergone my subjective analysis.

In order to simplify my analysis, I have broken down both the police culture and the learning organisation literature into useable elements so that any links may be easier to both establish and box. My model of the learning organisation is described in this paper, as are what I consider to be the most important generic elements of police culture. Analysis of the results of this research is not yet complete and this paper serves as the foundation upon which my thesis, exploring police culture and its influence on SAPOL as a learning organisation, is based.

ELEMENTS OF POLICE CULTURE

Brown (1995:26) describes culture as being a product of 'historical process'. In a general way his book describes and categorises all manner of organisational cultures for the purpose of analysing and gaining a deeper understanding of the influences of organisational cultures. He also talks about the fluidity of organisational culture when he says;

> Organisational cultures are rarely completely static over long periods of time. Rather, they are subject to continuous processes of development and change due to organisational learning which occurs as employees seek answers to problems of external adaptation and internal integration. In fact different elements of a culture are likely to be differentially resistant to change, with basic assumptions being the least likely to alter radically and artefacts being the most prone to evolutionary processes. (Brown 1995:33).

In Brown's passing reference to police culture (1995:70), he put it into the category of the tough guy macho culture. He did not describe it as a culture more closely aligned with the civil service, which he described as a 'process culture' characterised by strict hierarchical structures (Brown 1995:71). Brown has described police culture in terms of operational police reacting quickly to crime on the street, not as a bureaucratic organisation that has operational policing as an arm of its service. This description of police culture as being something that described operational police is a theme of all academic literature on the occupational culture of policing. Police culture is described as something that exists from the perspective of the police officer who frequently deals with both criminals and the public as a part of his or her occupation.

As well as this almost assumed theme that police culture be analysed and situated in the light of operational policing, there have been a number of other elements of police culture high on the agenda for analysis. Some assumptions in the literature are that police culture has intrinsically negative connotations (Skolnick 1966, Manning 1977, Fitzgerald 1989, Reiner 1992, Skolnick & Fyfe 1993, Chan 1997, Prenzler 1997, Wood 1997). That negative part of police culture which has traditionally been discussed concerns unpalatable conduct or behaviour which leads to unacceptable deviance or criminal behaviour. Skolnick (1966) attributed this behaviour to the police perception that they are in constant danger while working, as well as their need to be suspicious in order to properly carry out their role as protectors. This view of their position is coupled with the authority to use force to achieve the ends expected by society. All of these factors combine to create an environment where behaviour that may be seen as deviant is accepted by the police as a necessary norm, and thus internalised and rationalised. Skolnick (1966) further contends that these attitudes are passed on to all the new recruits and are promoted as necessary attributes to be had to be successful at the policing craft. An agreement among police of the need for this process in order to provide what they consider to be the best policing service, necessarily promotes an atmosphere of secrecy, or as Wood (1997) would put it, 'brotherhood'. This socialisation in order to promote a culture implies that there is a wide gap between formal rules and informal practice (Prenzler 1997). In the highly publicised Wood Royal Commission, Commissioner Wood describes some of the elements of police culture in this way;

> It is apparent that there is an inimical feature of the NSW Police culture, and its significance has not been sufficiently recognised by those responsible for the management of the Police Service. ... This aspect of the police culture is the enemy within. It is virulent and perverts the oath of office. It thrives on greed, prizing loyalty to one's corrupt colleague above loyalty to the Police service. Its weapons are those of the standover merchant and it depends on group loyalty, a tradition of mateship and peer group pressure. Those who subscribe to it hold little fear of being exposed. (Wood 1996:45).

Prenzler (1997:48) in his summing up of the literature, distils elements of police culture into 4 categories. Firstly he says that police culture has a "Disregard and disdain for rules and procedures ... especially in the treatment of suspects". Secondly he says that police culture has a "Disregard for due process ... as an outcome of a dominant crime control model of policing". Thirdly he says that police culture is characterised by "Cynicism, isolation and intolerance". Fourthly he talks of the "solidarity" of police culture being an offshoot of isolation and cynicism.

The literature is consistent in offering generalisations of police culture. Reiner (1992:112) talks about the strength of the culture being based on a foundation that police work is a mission - it is "a worthwhile enterprise, not just another job." and therefore anything done in pursuit of this mission is serving a greater cause, not the individual. It is this foundation that makes police culture so hard to reform. He uses Skolnick's (1966) analysis of police culture as a foundation for his understanding of the culture and he identifies of the following 6 common elements of police culture or 'cop culture' as he describes it:

Suspicion: he describes as a product of the need to watch for signs of trouble, danger and clues. Suspicion in this sense requires the police officer to have a well defined cognitive map of the world in order to determine those things that don't fit easily into that map.

Isolation/solidarity is an attribute he suggests that implies a degree of siege mentality. He suggests that police see themselves as making up the us component of us and them. As a result of this, police tend to befriend and rely upon other police who understand their view of the world.

Conservatism: Reiner concluded that police were generally conservative and that police do not easily suffer divergence from the norm. Left wingers, greenies and other 'troublemakers' do not sit comfortably with the police cultural view of an ordered society.

Machismo he says is evidenced by the typical profile of a police organisation that is still very much dominated by the white Anglo-Saxon male (also see Heidensohn 1996). Organisations such as these create a haven for sexism, homophobia and the actual enjoyment of, as well as the anticipation of the risks associated with the occupation. He suggests that police exist in an environment where most think that it is fun to play 'cops and robbers'.

Racial prejudice is described as part of the culture, however, police are said to be only slightly more prejudiced than the community as a whole (see also Wortley 1992, Chan 1997). He contends that this prejudice exhibited by police is in fact a reflection of the dominant attitudes of the majority of people towards minorities.

Pragmatism in the police cultural sense, Reiner describes as 'conceptual conservatism'. He asserts that police are reluctant to contemplate innovation, experimentation or research.

Skolnick and Fyfe (1993) have added another generalisation to this list of cultural mores, apparently in response to the 1991 beating in Los Angeles of Rodney King. They suggest that there is a culture of violence and that this deviant behaviour is exacerbated by police culture. They suggest that the police use of violence is in response to their mandate to use lawful coercive force and is in keeping with Reiner's (1992) machismo. These analyses are obviously drawing on research undertaken in the United States of America. They emphasise both police training in unarmed self-defence and use of firearms, conducted under the umbrella of their lawful powers of coercion. The literature on police culture which emanates from the United Kingdom and Australia does not place the same emphasis on this issue. In the light of the above generalisations the 'entity' known as police culture has according to James and Warren (1994:3) been "treated synonymously as the cause and effect of police misbehaviour".

Janet Chan (1997) has undertaken probably the most detailed Australian study of police culture. Her particular focus was on racism in the New South Wales Police Service and the relationship between the police and Australia's multicultural society. As a result of her research she was able to review the literature that related to the police occupational culture and challenge most popularly held notions as to the nature of police culture. She argued that there were four major problems with current theories explaining police culture. She suggests that the theories do not account for differences in culture, that they neglect the role played by police officers themselves in perpetuating and transforming the culture, that the theories fail to situate police culture within a social and political context and that the theories do not talk about the scope and possibility for cultural change (Chan 1997:13). Through her use of a questionnaire survey and interviews with both police and non-police sources, she was able to expose the thesis that police culture is not all embracing and created through uniform socialisation, nor is it one where officers blindly follow the role set down by those experienced workplace heroes who have 'been there and done that'. She concluded that the combination of police culture and police work created an environment (Schein 1992, Gee 1996) where police have a very different view of the 'real world'. This view of the 'real world' invited an 'us and them' mentality (Reiner 1992). She then proceeded to re-conceptualise the construction of police culture and used the notions of Bourdieu's 'field' and 'habitus' in her analysis. Through the use of the theories of Bourdieu, she was able to address the concerns she raised about other theoretical models of police culture and ensure that both internal and external factors are taken into account in her construction of the culture.

Chan (1997) agreed that police culture was as a result of history (Manning 1977) and learned dispositions (Schein 1992). She then moved on to say that police work was dictated by the officer's perception of what constitutes suspicious activities (Chan 1997:21). The implication here is that this perception has been moulded both by history and socialisation. To this she emphasised the value of experiences and it is upon this foundation that she built her theory using Bourdieu's habitus and field. She used the 'habitus' to describe the experiences that formed the police view of common sense. Her concept of 'field' situated this common sense within the historical and socialised relationships - in particular the relationships with ethnic groups that were not Anglo in origin. The relationship between cultural knowledge (habitus) and the structural conditions of police work (field) is said to have been developed as a way of coping with the unpredictable nature of police work. The point of this construction was to emphasise that "structural conditions do not completely determine cultural knowledge, and cultural knowledge does not totally dictate practice" (Chan 1997:73).

Chan identified that there were three major assumptions made in the majority of academic discussions of police culture (Chan 1997:44). Firstly it was assumed that the demands of police work were linked to the culture. Secondly it was assumed that the culture was relatively stable over time and space and thirdly it was assumed that the culture had a negative impact on police practice. Chan covered the first two of these assumptions by asserting that they were simplistic and did not take account of social influences as well as individual acquiescence to the culture, internal differentiation and jurisdictional differences (Chan 1997:65). In analysis of the third assumption that police culture had a negative impact on police practice she commented that in a general sense the culture was positive, only for the fact that it is functional to the survival and security of police officers working in a dangerous, unpredictable and alienating occupation (Chan 1997:45). In any further analysis she was strangely silent to the point of conceding the truth of that assumption. To be fair, the focus of her research was the examination of the New South Wales police and their relationship with ethnic minorities. The results of her research certainly imparted a negative flavour to that relationship, but it still left begging the question as to whether there were any positive aspects of police culture. In leaving this assumption untested, Chan fell back into the pack of academic commentators who concentrated on police culture in the light of it being an almost wholly negative concept (Skolnick 1966, Westley 1970, Manning 1977, Fitzgerald 1989, Bolen 1990, Reiner 1992, Skolnick & Fyfe 1993, Prenzler 1997, Wood 1997). In the academic discussion, positive aspects of police culture were not denied, rather they were ignored or just not identified.

Moir & Moir (1992:220) identify another assumption associated with police culture in quoting Beyer (1991). They suggest that police culture has at its core a philosophy as to how the community should be policed, as a result of the interpretation they have of themselves as crime fighters. This interpretation is pervasive and infiltrates decisions and actions, regardless of other possible community interpretations of the policing role.

A common feature of all the authors cited is that they agreed that many police officers do not fit the cultural paradigm as they portrayed it. In my analysis of the literature that deals with police culture I have categorised elements under the following headings.

Culture placed in the context of operational policing

All of the literature on police culture places it firmly within the operational sphere. Skolnick (1966) calls it the policeman's (sic) 'working personality'. Reuss-Ianni (1983) also talks of culture in terms of 'street cop' work, although she did say there was a clear distinction between 'street cops' and 'management cops'. She talks of the anxiety associated with policing associated with the constant threat of danger (1983:20). Affirmation of this assumption continued with Reiner (1992), Brown (1995) and Chan (1997).

Police culture - working class

This cultural element has been identified by Bradley (1992), Bolen (1992) and Wells (1997) who talk about the origins of policing and the tradition of its members coming from working class backgrounds and who may suffer from low self esteem. This brings with it the implication of a distrust of intellectuals, and generally people who are not of a working class background.

Them and us - loyalty

Loyalty has been identified as being a common feature in all of the literary discourse in relation to police culture. In looking at the concept of loyalty in the context of policing in the negative sense, it is said to breed solidarity, secrecy and corruption (Manning 1977, Reiner 1992, Fitzgerald 1989, Wood 1997). In its most positive interpretation, loyalty is said to provide support and be nurturing through membership of the police family (Macdonald 1995, Nixon and Reynolds 1996).

Untrusting

The issue of trust has been identified as a crucial aspect of the police occupational culture (Skolnick 1966, Manning 1977, Reuss-Ianni 1983). In describing trust with its negative connotations, it is said that police culture, or socialisation, breeds a lack of trust leading to suspicion, unhealthy cynicism, or what Reiner (1992) refers to as the 'siege mentality'. In a positive sense it has been said that a lack of trust could be seen as a necessary weapon in the police armoury in order to properly protect the community from criminals (Skolnick 1966, Edwards 1999).

Service - 'Getting the job done'

The idea of policing being a 'mission' and being more than a job (Reiner 1992) indicates the service commitment inherent in police culture. This commitment could be translated in the negative sense into getting the job done at the expense of justice and the rule of law (Skolnick 1966, Manning 1977, Reiner 1992, Chan 1997, Prenzler 1997). In the positive sense, getting the job done could be interpreted as being just that. Despite constant scrutiny and adversity, police culture still is able to maintain an ethos of helping and serving the community (Palmer 1992, Etter 1995).

MY LEARNING ORGANISATION MODEL

> It can be argued that all organizations learn, or they would not survive, but learning organizations demand proactive interventions to generate, capture, store, share and use learning at the systems level in order to create innovative products and services. The pressure to learn increases proportionately to the extent that the environment, in which the system exists, is changing; and therefore, the extent to which the system must keep in touch with, and adapt to, these changes (Marsick 1997:2).

Learning organisation literature is vast and still evolving, which is probably reflective of the dynamic and constantly changing work environment which characterised the late 1990's. The nature of work and learning has changed from the Fordian machine metaphor which existed at the start of the century into the organic metaphor (Pedler 1995). Zuboff (1988) talked of the fundamental changes that the smart machine is having on work in the last part of this century and it seems now that the ability of an organisation to get smart and learn is a concept taking shape in the contemporary literature. Through the conceptualisation that an organisation is something alive and able to learn, imparts a positive sense of purpose on the membership of that organisation and implies an ability for the organisation, as a living entity, to improve. But, is it right to conceptualise an organisation as a kind of living entity? Garavan (1997:18) talks of the literature on the learning organisation being broken into two categories in its conceptualisation as an entity. On the one hand there are those that treat the learning organisation as a variable that can be designed in such a way that it will have an influence on organisational outcomes (Mumford 1995, Jones & Hendry 1994, Gault and Jaccaci 1996). On the other hand there are those who conceptualise the learning organisation as a *metaphor* where the organisation is seen as a culture, and the learning organisation is seen as a variant of that culture, or even a version of that culture (Senge 1990, Burgoyne 1995, Jones 1996, Addleson 1996). Indeed, Sofo (1993:26) sums up this view when he says;

> The metaphor of the learning organisation is a powerful one which treats organisations as personified organisms with the ability to continually adapt to changing environments.

In either conceptualisation is the important underlying assumption that a change in thinking, practice and eventually culture, will improve the ability of an organisation to work within, and adapt to, a changing work environment. Franklin, Hodgkinson and Stewart (1998:237) even argue that the learning organisation idea represents a contemporary and perhaps the 'ultimate articulation of the aims and values of organisational development'.

With the major contributions coming from Senge (1990), Watkins & Marsick (1993) and Marquardt (1996), I have distilled from the literature the following 7 elements I see as being essential ingredients to the learning organisation.

Systems thinking

This is the linchpin of Senge's ideal of the learning organisation. It is within the context of systems thinking that his other four elements live. Systems thinking involves the ability to look at a problem as part of an interrelated system. After seeing the problem in this light, systems thinking allows the problem to be solved through modification of the entire system. It is the ability to view things holistically that ensures a solution will not just be a quick fix, but a more permanent solution. Importantly systems thinking insists on having an appreciation of the interconnectedness of the organisation. An understanding of this interconnectedness contextualises each individual position and operation in the organisation. Systems thinking also requires an understanding of the connection between the organisation and the outside world. Watkins and Marsick (1992:122) agree with Senge (1990) when they describe systems thinking as the "... glue that holds the others [disciplines] together".

Personal mastery

Personal mastery is used in the sense of attaining a certain level of proficiency. It requires that a personal vision be articulated and then pursued. This desired level of proficiency is constantly maintained and built upon and is an indicator of a commitment to lifelong learning. In a learning organisation an environment must exist that allows employees the ability to strive continually towards personal mastery. Senge sees this is a spiritual foundation of the learning organisation.

Mental models

Mental models are described as deeply held assumptions or generalisations that influence both our understanding of our environment and the way we act in that environment. Mental models are insidious and will only surface and be recognised by the holder of the mental model through open questioning of one's own assumptions and listening to and discussing the views of others with an open mind. Only through this process is it likely that a person's deeply held view may change. Mental models are powerful in their effect on what people do because they directly effect what people see (Senge 1990:165). Watkins and Marsick (1992:120) identify mental models as the most import of hurdles in the change arena.

Building shared vision

Senge describes his idea of shared vision as a genuine vision. It is a vision accompanied by commitment to its implementation and goals. Shared vision is a necessary component of organisational evolution towards a learning organisation and must be real enough so that the vision of the individual can be translated into the vision of the organisation. It cannot be a vision thrust upon its members, the members of the organisation must have ownership of their vision. Marquardt (1996:46) says of this, "when there is a truly shared, genuine vision, people tend to excel and learn". Garavan (1997) talks of the idea that shared vision is an enabler that allows the creation of a learning organisation culture.

Team learning

"Teams, not individuals are the fundamental learning unit in modern organizations" (Senge 1990:10). The essence of team learning is founded on the concept of true dialogue. This true dialogue is one that encourages the team to think together so as to achieve results not achievable by individuals. This type of learning he describes as being the 'free flowing of meaning' through the collective creation of knowledge (Senge 1990:10). This analyses of team learning is opposed to the concept of team building, which encouraged open personal communication and building spirit. Senge's idea of team learning it is a concept where a discourse is created that facilitates the necessary open inquiry and dialogue. Team learning does not necessarily require a team to be free of conflict, it requires the team to share and appreciate the views, as well as recognise the talents or failings of other team members. If one was to look at an achievement based analogy, one could describe the performances of an orchestra or sporting team as being more than just the sum of individual performances (Sofo 1993:25). Senge (1990) sees the role of the manager in all of this to be one of steward or designer, as opposed to being a charismatic hero who makes the key decisions. Team learning under astute stewardship, and involving a cross-section of the organisation from the top to the bottom working together, gives a sense of the potent energy that could be spread throughout the organisation.

Dialogue

Dialogue is a central component of the learning organisation model developed by Michael Marquardt (1996). It is described as communication of the highest quality, comprised of listening to and sharing information on order to create collective thinking (as an adjunct to team learning) and be used as an aid to identifying mental models that may stifle organisational learning. Dialogue is seen as "...the critical medium for connecting, inventing, and coordinating learning and action in the workplace (Marquardt 1996:46).

Leadership

Marsick and Watkins (1996) described the element of leadership as being essential for the building of a learning organisation. This leadership is different to the stewardship as described by Senge (1990) in the context of team learning. In the view of Marsick and Watkins (1996) leaders must model learning. In this way the leader connects the organisation to the environment which in turn leads people to being empowered and capable of moving toward a collective vision. Leaders are also required to be able to establish systems to capture and share learning, encourage collaboration and team learning, promote inquiry and dialogue and create continuous learning opportunities. Leadership must be present in order to bring all of the learning organisation elements together into a cohesive whole. Richardson (1995) discusses the importance of leadership in the formation of a learning organisation and distinguishes between 'hard' leaders who take a prescriptive approach to learning and 'soft' leaders who rely on networks of people to self-organise.

WHAT THE POLICE SAY ABOUT THEIR CULTURE

> In the field, officers are endlessly brave, pragmatic and wise. Return them to their stations and the old culture seems to squeeze out the bravery and the creativity from them, leaving for managers a difficult mix of dry wit, scepticism and a cramped silence (Wells 1997:197).

This observation of Wells (1997) seems to be validated by the research of Skolnick & Fyfe (1993) where they question the value of the para-military model of policing where police at the bottom of the hierarchy have the largest discretionary powers on the street and yet they are stifled in the organisational context by a strict hierarchical system. Woodcock (1991:175) takes the issue one step further by saying that police organisations have been adept at creating hierarchical structures that protect rather than explain and seek scapegoats rather than admit mistakes.

Hierarchical structures, rank structures, trust, loyalty, caring, cynicism - all are elements that must be examined in the light of learning organisation theory. Do the police see themselves differently from those academic authors who scrutinise them looking from the outside in?

The articulation of South Australia Police culture is yet to be added to this paper. It is anticipated they will have a lot to say about their culture and their ideas about learning in the organisation and the concept of evolving into a learning organisation. It is within the model of the learning organisation that I have described that I will situate the SAPOL cultural mores. Through using this structure I hope to be able to find some clear links between SAPOL culture and the effectiveness of the aspiring SAPOL learning organisation.

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Teenagers' full-time work and learning: A case study in what research findings say about policy, practice, theory and further research possibilities

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ABSTRACT

This paper uses the example of the author's recently-completed PhD thesis to illustrate how research findings can have implications for policy, practice and theory. Although the creation of new knowledge is itself of value, it is becoming increasingly important for research findings to have practical utility. The PhD thesis, on a topic of great political and educational interest which, curiously, has been under-researched, provided an opportunity to explore the possible outcomes of a piece of research.

THE STUDY

Rationale and research method

The study (Smith, 2000) examined the learning experiences of Australian young people starting full-time work in their teenage years. Despite the expansion of higher education in the past twenty-five years, most Australians still start work immediately after leaving school. Although the labour market for young people has become increasingly difficult, with a growing casualisation of the workforce and high youth unemployment (Sweet, 1988, 1998), the majority of school-leavers, even early leavers, still manage to find full-time work (Marks & Fleming, 1999). Yet, over the last 25 years, there have only been a few studies of young people in their first jobs. There has been some previous qualitative research in young people's learning in the early months of work but this research is now outdated and is mostly from overseas (eg Ashton & Field, 1976; West & Newton, 1983; Griffin, 1985; Reeders, 1989; Borman, 1991). Moreover, these studies have not focussed specifically on the young people's learning; this topic is generally only addressed in studies of apprenticeship (eg Harris, Willis, Simons & Underwood, 1998). Virtually no scholarly literature exists on traineeships (C. Robinson, 1999). Thus, although much attention is given to entry-level training policy by Australian governments, there is little qualitative research into the actual experiences of the young people for whom such policies are created.

The study comprised eleven case studies, following eleven young people (aged 16 to 18) in New South Wales through their first twelve months of full-time work. There were four apprentices, four trainees, and three 'juniors' who did not have a contract of training. The young people worked in a range of private-sector industries. Interviews with the young people were supplemented by interviews with the important adults in their working and learning lives: their managers, their parents and their TAFE teachers where applicable. Those young people who changed jobs were followed into their new jobs and their new managers interviewed.

The findings

Two research questions were posed: 'What do young people learn about work in their first year of full-time work?' and 'How do they learn it?'. In answer to the first question, ten 'domains' or possible types of learning were proposed: technical skills, generic competencies, knowledge, learning about the occupation, learning about the organisation, learning about the industry, job-keeping and 'political' skills, industrial relations, learning about oneself and learning about learning. The actual number of domains in which young people learn and the depth of learning within the domains is determined by eight facilitating factors: industry training tradition, firm's training culture, work organisation, people at work, family and friends, off-the-job training, government policies and institutions, and young person's attributes. These factors form a 'filter' through which possible learning may or may not reach the young people. If the factors are favourable, they enable the learning potential of the first year at work to be realised (Smith, 1999). Figure 1 shows these findings diagrammatically.

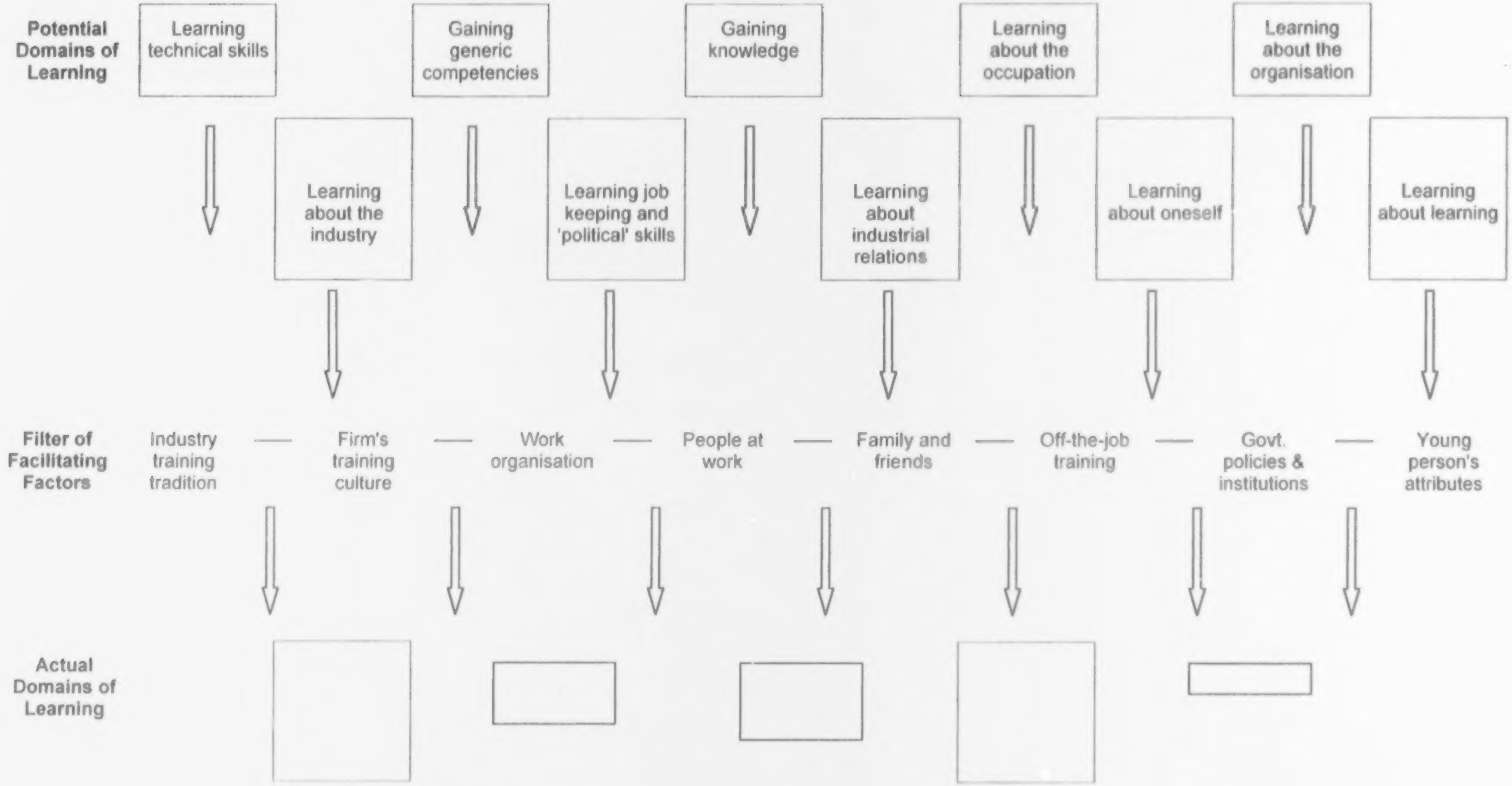
Potential Domains of Learning
Learning technical skills
Gaining generic competencies
Gaining knowledge
Learning about the occupation
Learning about the organisation
Learning about the industry
Learning job keeping and 'political' skills
Learning about industrial relations
Learning about oneself
Learning about learning
Filter of Facilitating Factors
Industry training tradition
Firm's training culture
Work organisation
People at work
Family and friends
Off-the-job training
Govt. policies & institutions
Young person's attributes
Actual Domains of Learning

Figure 1: Potential and actual domains of learning available to young people in their first year at work

In answer to the second question, four major sources of knowledge were identified:

1. Workplace sources;
2. Off-the-job training;
3. Family and friends; and
4. 'Outside' jobs and 'outside' learning.

1. Workplace sources:

Workmates and supervisors provided most training. In some cases workmates were more helpful; in some cases supervisors were. Customers and suppliers were also valuable sources of learning. As well as providing information about products they also provided opportunities for the young people to gain feedback on their performance. Further sources of learning were print or electronically based. Some of the young people had access to company manuals, induction handbooks, product information and the Internet. Sometimes these were used quite intensively; sometimes hardly at all.

2. Sources connected with off-the-job training:

As with workplace sources, these could be divided into people and other resources. Teachers were generally useful sources for the young people. They taught technical skills and propositional knowledge, provided information about other employers in the industry, and helped the young people gain self-confidence. Other students were also valuable sources of learning. Off-the-job training also brought with it print, audio-visual and (to a very limited extent) electronic resources. These were rarely mentioned by the young people as being useful sources of learning.

3. 'Outside' jobs and 'outside' learning:

'Moonlighting' provided an extra source of learning for a small number of young people. It appears to be most common amongst the building trade. 'Outside' courses were an additional form of learning. These were undertaken by two of the young people to prepare for future work needs.

4. Sources connected with family and friends:

The provision by these people of the opportunity to reflect upon experiences and discuss work problems was valuable. However more specific learning also took place. Parents and siblings were able to pass on their knowledge of the young person's industry or of workplace issues in general. The young people, through discussion with their peers, gained a greater understanding of different workplaces and a greater appreciation of the relative status and potential of their own workplaces.

Processes of learning were categorised into *taught*, *sought* and *wrought*. 'Taught' refers to learning with is explicitly provided to the young person. It may be formal or informal. 'Sought' refers to learning as a result of active seeking by the young person, by reading, questioning, consciously observing other workers or deliberately seeking new tasks in order to learn. 'Wrought' applies to learning which is 'fashioned' from experience rather than being

intentional, and roughly equates to Marsick & Watkin's (1990) category of 'incidental learning'. It needs to be noted, though, that the young people needed to be capable of reflection (Kolb, 1984) for much learning to be 'wrought' from experience. The more reflective they were, the greater the learning. Hence wrought learning is more purposeful than Marsick & Watkin's 'incidental learning'.

IMPLICATIONS FOR THEORY

The findings of this study have uncovered a number of difficulties in existing theories relating to workplace learning and to young people starting work. The most problematic areas are discussed below.

Performance

Literature on workplace learning in general, and expertise in particular (eg Dreyfus & Dreyfus, 1986), does not acknowledge the importance of the level of performance in any discussion of individuals' work and learning. The study, however, showed that the young people's performance affected their interest in, and capacity for, learning; as well as the way in which other workers viewed them and were prepared to develop them. Cornford and Athanasou's brief (1995) discussion of 'learning ability' needs developing further and needs to include working ability as well as learning ability.

Situated learning

Currently fashionable, situated learning theories suggest people learn through their participation in a 'culture of expert practice' (Collins, Brown & Newman, 1989). The literature, much of which is based upon anthropological studies in third world countries (eg Childs & Greenfield, 1980; Lave & Wenger, 1991; Chaiklin, 1993) attempt to extrapolate findings from communities of practice in those countries to modern workplaces. The current study indicates that while some of the activities described in situated learning theory, for instance involvement in low-skilled but authentic activities (Lave & Wenger, 1991) are utilised in modern workplaces, the concept of enculturation into a homogeneous community of practice as such is not found. The workplaces and work processes were too diverse for this; moreover, most of the young people belonged to two communities of practice: the occupation and the organisation. Organisational issues are not separated out, in the situated learning literature; the literature appears to assume that organisational culture is synonymous with occupational culture.

Transition to work

The large body of literature on this topic proposes various theories and models. One group of writers (Sweet 1998; Dwyer & Wyn, 1998; Marsh and Williamson, 1999), in what might be termed the 'doom and gloom' school, suggest that young people entering work in the 1990s in Australia, particularly those who leave school before completing Year 12, should resign themselves to at least a medium-term prospect of unstable, part-time, low status work. The sample for the current study was, of course, biased, in that the young people had all managed to find full-time work. But there was little evidence to suggest that the young people had experienced any particular difficulty finding the jobs; they were almost all in work which they particularly wanted to do, and they were all able to find alternative jobs reasonably quickly when they decided they wanted to move. Recent statistical evidence that the majority of teenagers not at school are in full-time work (ABS Series 6203.0, April 1999) tends to support the findings of the study. The research indicates that there has been a tendency to focus on those at risk. Although important in policy terms, this tendency has presented a false picture of the difficulty of transition from school to work in Australia.

The findings also indicate that young people's 'adjustment problems' at work are not so great as has been imagined. While starting work was undoubtedly stressful (as reported by West & Newton, 1983), the young people generally received a good deal of support from their employers, who were determined to make the transition as easy as possible. The skills which helped the young people settle quicker were those covered by the term 'attitude' (House of Representatives Standing Committee on Employment, Education and Training, 1997: 1-2). The general finding that the young people adapted well to work and quickly began to perform work of considerable complexity supports Borman's (1991) view of young workers as resourceful and skilled. A 'deficit' model of young workers is definitely not supported by the research.

IMPLICATIONS FOR POLICY AND PRACTICE

Dealing with jobs with low learning potential

The model of potential domains of learning and the way in which they are filtered to form actual domains of learning (Figure 1) can be used to assess the learning potential of jobs available for young people. For each young person and the job he or she enters, the facilitating factors can be examined and potential risks identified. If there is a high degree of risk associated with a particular factor, then the other factors could be examined to assess whether they would compensate for the factor which is unfavourable.

A hypothetical example follows:

> A girl leaves school and decides to enter the information technology (IT) industry. This industry has little tradition of training ('industry training tradition') so she might compensate by enrolling herself in a TAFE course in the evenings to maintain her learning ('off-the-job training'), or by joining a company which offers IT traineeships ('government policies and institutional arrangements'). The TAFE course enables her to learn some skills ('technical skills' domain) which are important in the industry but not needed in her current job.

Such intervention, however, would depend upon active involvement by an informed and interested adult, to whom not all young people would have ready access. There are possible policy solutions to this problem, including the utilisation of existing or new agencies to provide 'learning advice' to all young people starting work, not just those at risk or those entering contracted training.

The case studies indicate that 'juniors' are unlikely to find a reason to enter formal education or training, since at work they are taught all they need to know to do their current jobs; and their learning about the industry and the occupation is relatively modest, so that they may remain unaware of career possibilities. These young workers are most in need of learning advice. A recent report by the Dusseldorp Skills Forum (Spierings, 1999) has advocated that early school leavers should be entitled to a bank of 'full-time equivalent education' which they can use to 'purchase' education and training from a variety of sources. The current study shows, however, that advice is needed more than, and certainly as well as, the purchase of training.

Careers advice at school

The study clearly supports previous findings (eg House of Representatives Standing Committee on Employment, Education and Training, 1997) that careers advice at school is inadequate. The young people reported that their school careers advisers spent most of their time either organising work experience for younger students, or helping university-bound students choose courses. The majority of young people, who wish to go straight from school to work, are poorly catered for in such a situation. The research indicates that careers advisers need considerable retraining and perhaps that additional careers advisers need to be engaged either in schools or elsewhere. It is possible that such positions could be combined with 'learning adviser' positions as advocated above. The Dusseldorp Skills Forum report (Spierings, 1999) advocates a similar role for what it terms 'transition brokers'.

Training and employment services market

Considering the lack of careers advice available to young people at school, it would appear essential to maintain a network of other reputable organisations which can assist young people find work and access training. In previous years, the Commonwealth Employment Service's Youth Access Centres helped to meet this need. Unfortunately no such network now exists, following the privatisation of the employment services market (Coombe et al, 1999) and the introduction of 'user choice' (KPMG, 1998). Although many organisations have sprung up to meet the markets which have been created, each has its own 'axe to grind'. Subsidies, outcome targets and cost considerations may outweigh genuine concern for young people and their futures. Several of the case studies indicated the difficulties the young people faced in finding out how to access advice about employment and training and where to seek help when things went wrong. Governments therefore need to re-introduce effective employment and training advice and monitoring systems for young people and indeed all workers. These systems need to be separated from any organisations which might stand to make financial gain from any advice which is offered.

Apprenticeships and traineeships

Differences were noted between apprentices, trainees and juniors indicating that the presence and nature of a contract of training influences the richness of young people's learning in their first year of work. The presence and nature of off-the-job training is one of the more important of the facilitating factors listed above. Apprentices and trainees learned more and more deeply than juniors who did not have off-the-job training; moreover, face-to-face off-the-job training was superior to distance education and self-paced learning.

There also appeared to be some differences between apprentices, trainees and juniors, with relation to the amount of learning which was taught, sought or wrought. These differences related not so much to learning how to do the job at hand, since all of the young people were given training (albeit some more systematically and successfully than others) for their daily tasks at work. The differences related rather to learning the occupation and learning about the industry, ie learning for future rather than current needs.

The apprentices learned most from being taught; they learned a moderate amount through incidental learning and sought very little learning for themselves. The trainees were extremely active in seeking out knowledge; on the whole they were taught fairly well, and also extracted quite a lot of learning from their everyday working experiences. Juniors were not taught beyond immediate task-related training, they did not seek learning to a large extent, but learned most through their day-to-day work, although with varying capacities to reflect on the learning thus gained. The juniors also brought a fair amount of prior learning with them.

The passive nature of the apprentices' learning in the first year may be explained as follows. While apprentices place an emphasis upon learning, and therefore might be expected to seek out their learning more (Lane, 1996) they know that they have three or four years to gain their learning, therefore they are willing to wait and see what they will be taught before they begin to worry about not learning enough. Trainees on the other hand, with only twelve months guaranteed learning, try to gain as much knowledge as possible during that time; thus one trainee in the study referred to her twelve months as 'a kind of extended work experience'. Subsequent years at work might present a different picture, with the apprentices perhaps becoming far more pro-active in seeking out learning.

The research also indicated clear differences between expectations attaching to apprenticeships and traineeships. Apprentices, their parents and their employers were aware of the long tradition involved in apprenticeships (Lane, 1996) and were attracted to them because of that tradition. Apprentices were always interested in the particular occupation. Traineeships, on the other hand, were also valued, but mainly as a stepping-stone to a higher career in the industry, not necessarily the particular occupation.

The findings about differences between apprenticeships and traineeships has some clear implications for policy:

1. The current attempt to conflate apprenticeships and traineeships as New Apprenticeships (eg ANTA, 1999) is flawed and needs to be reversed. Queensland has already refused to use the term (Schofield, 1999). All stakeholders respond well to the two separate terms; and keeping traineeships separate will assist the growth of a distinctive tradition of training in the 'traineeship' industries. The study showed evidence that this was emerging.

2. More consideration needs to be given to what trainees are looking for in their training. The study clearly showed that the comparatively well-educated trainees (all Year 12 leavers) found their studies too easy. They lost respect for the VET system. Training needs to be more rigorous and have more of a theoretical and knowledge base. Moreover, if trainees are looking to articulate into university courses, more attention needs to be paid to making this possible. VET graduates from Training Packages, which are designed to facilitate on-the-job assessment without any teaching or learning component, are likely to be refused credit by universities.

3. On-the-job traineeships are clearly subject to financial and other irregularities (Schofield, 1999). The study shows that it is best for traineeships to have an off-the-job component. There are so many favourable conditions required in order for on-the-job traineeships to succeed that success is perhaps rarely attainable. The two on-the-job traineeships in the study were only 'rescued' at the last minute, and through much of the year it seemed as though neither would gain their certificates.

4. The existence of a contract of training, whether an apprenticeship or a traineeship, appears to affect the expectations of young people, their employers and their parents towards the amount and quality of learning which will be experienced in a job. This is an argument for a further extension of traineeships, but with due regard for quality of employment and training conditions.

5. On-the-job trainees who are part of a whole-workforce cohort, as is common in the food processing and automotive industries (Smith & Smith, 1998), have a different training experience from 'individual' trainees. In these cohorts of trainees, young people have no especial place, and attention may not be given to the learning domains of young people as identified in this study.

Young people's part-time work

Although the majority of school students old enough to work do not yet do so (L. Robinson, 1999), a substantial minority does. This phenomenon is relatively unexplored in policy terms. The young people in the study had generally undertaken quite responsible part-time work, which probably had some effect on their ability to find full-time work comparatively easily, and to adapt to full-time working life. There are some important policy implications of these findings:

1. The Australian government currently takes no interest in the question of access to part-time work, although research in the UK has shown that working-class children and those from ethnic

minorities have difficulty finding such work. If the effects of part-time work upon subsequent full-time employment are positive, then equity considerations suggest intervention of some sort may be appropriate.

2. Current government response to part-time work has been to try to extend part-time traineeships into such work. However the research does not support such an initiative. The young people clearly saw a break between their part-time and their full-time work and would have seen no point to such a scheme. Moreover, most researchers (eg Greenberger, 1988) have found that young people do not eventually work full-time in the industries in which they worked part-time. Therefore a part-time traineeship will generally be of no ultimate value to young people; the general skills and attitudes developed during the part-time employment are far more valuable and do not need 'validation' by a traineeship.

3. Apprentices' and trainees' training providers need to note the considerable skills gained by young people in their part-time work, not necessarily by granting recognition of prior learning, but by acknowledging and utilising these skills during classroom activities. Similarly, employers might benefit from a more explicit acknowledgment of their young full-time employees' past work experience. An assumption appeared to remain that young full-time workers came devoid of previous experience and knowledge.

IMPLICATIONS FOR FUTURE RESEARCH

Some of the findings of this study can be expressed as propositions, each of which could guide further programs of research. Each has implications for Australian policy, but needs research on a wider scale than the current study to support the propositions.

Proposition 1: There are a number of important differences between apprentices, trainees and juniors relating to learning and training.

Proposition 2: Off the job training is essential to realise the maximum learning potential of young people's first jobs. It is most valuable when delivered face to face.

Proposition 3: There is little connection between the part-time work undertaken by young people whilst still at school and the full-time work they eventually go into.

Proposition 4: The work most young people do by the end of their first twelve months of full-time work is complex and skilled.

Proposition 5: Most employers have well-developed strategies for supporting young people in their first jobs.

Proposition 6: A tradition of training is growing in the industries where traineeships are most common.

CONCLUSION

The actual experiences of the group of people for whom entry-level training and school-to-work transition policy are devised indicate a number of flaws in current policy and practice. Although the scale of the research study was limited, the robustness of its findings is a strong argument for qualitative research, particularly in the identification of new variables (Bogdan & Biklen, 1982; Howe, 1988), the understanding of phenomena in context (Speedy, 1990) and the uncovering of participants' meaning and intent (J.K. Smith & Heshusius, 1986). Policy-makers may, however, prefer findings to be confirmed thorough larger-scale research. But smaller studies are important as a preliminary to establishing the variables for subsequent larger-scale research.

On a more general level, this paper indicates the potential for research studies to enrich or critique existing literature, to evaluate current polices and practice; and to provide a springboard for further research. Although the links between research and changes in policy cannot always be traced directly, it is certain that without effective research, effective policy is unlikely to be implemented. The area of entry-level training has been subjected to continuous policy change through the 1990s (Smith & Keating, 1997), which has been informed less by empirical research than by insistent lobbying by a limited range of stakeholders. This study and its conclusions provide an example of how a carefully conceived and executed research project, underpinned by detailed study of relevant literature, can help to inform policy and practice. Many commissioned research projects, and even much research undertaken as a result of the award of competitive grants, are rushed in their execution. PhD research, inevitably more leisured and more reflective, provides the ideal opportunity for such a process.

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Preparing learners and workplaces in the effective use of flexible delivery for workforce training

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ABSTRACT

This paper reports on several research projects that indicate that for flexible delivery techniques to be successfully used for training directed at workforce productivity improvement, several preparations need to be made. The research indicates that workforce learners may not be prepared for effective engagement with flexible delivery techniques, and that enterprises have not typically developed the training support mechanisms required to support effective workforce learning through flexible delivery.

Drawing on research completed both in Australia and in Indonesia, the paper proposes a model for developing preparedness. The model is then used as a framework for the development of strategies that will prepare both learners and enterprises for effective use of flexible delivery techniques for workforce training.

INTRODUCTION

It is commonly observed (Moore, 1977; Kember, 1995; Boote, 1998) that successful open learning or resource-based flexible delivery provision requires learners to be self-directed. Boote has pointed to writers such as Candy (1991) and Crombie (1995) who have questioned whether learners are prepared for flexible delivery, and adequately supported through it. Additionally, Warner, Christie and Choy (1998) have shown that the majority of VET learners are not self-directed. In an empirical factor analytic study, Smith (2000a) has shown that technology students in VET have little preference for self-directed learning, prefer learning in a collaborative environment with their peers and instructors, and have a low preference for learning programs that are presented through text. These students displayed higher preferences for structured and instructor-led learning environments where learning activities were through direct practical experience. Working with apprentices in another factor analytic study, Smith (2000b) has shown a similar distaste among those learners for self-directed learning and a similar preference for learning in a collaborative environment. While the same preference for learning through direct hands-on experience was also shown for the apprentices, their preference for well-structured learning and instructor-led, learning environments appeared to be even stronger than for the technology students.

In her study of adult vocational learners and their teachers, Boote (1998) has concluded that the skills of metacognition required for effective self-directed learning are not well developed in vocational education and training (VET) learners. She has suggested that 'A presumed level of self-directedness is apparently being relied upon to allow the educational initiatives and flexibility in VET to be implemented...' (Boote, 1998, 80). Evans (1999) has asserted that for flexible delivery to be effective, it is important to research learners in a systematic way to accommodate their needs in a way that enables those learners to engage with, and gain value from, a flexibly delivered program of instruction. Research focussed on the learning characteristics of students has been identified by Jegede (1999) as a high priority among distance educators in the Commonwealth.

Kember's (1995) two-dimensional model of open learning argues that success is dependent upon learners moving to a more independent, self-directed style of learning, and providers moving to greater openness in access and delivery. Similarly, Brockett and Hiemstra (1991) have proposed that development of successful self-direction in learning requires learner-centred strategies as well as appropriate instructional strategies. The current set of projects, which are still in progress, have used Kember's (1995) two-dimensional model as the theoretical framework. That model is attractive since it provides, along one dimension, for the development of learners towards self-direction. Along the second dimension, the model has been extended to provide for the development of workplace preparedness for the support of flexible learning. The opportunities to develop self-direction have been established through research. Several writers (eg Curry, 1983; Sternberg & Grigorenko, 1997; Riding & Sadler-Smith, 1997; Weinstein & Mayer, 1986; Vermunt,

1996) have suggested that learning preferences and learning strategies are amenable to change and development among learners, but that action needs to be taken to achieve those changes. Sadler-Smith & Riding (1997) have suggested instructional materials and methods can be structured to assist learners to adopt new strategies, or to modify existing ones, and Boote (1998) has suggested that programs directed at learning to learn will be useful. At the same time, research on workplace learning contexts (Unwin & Wellington, 1995; Fuller, 1996; Brooker & Butler, 1997; Calder & McCollum, 1998; Harris et al., 1998) suggests strongly that workplace attention to training policies, culture, processes and structures can provide considerably enhanced support for enterprise-based learning.

This paper draws on four of our research focuses to develop enterprise-based strategies for effective use of flexible delivery techniques for workforce training.

RESEARCH FOCUS ONE - AUSTRALIAN VOCATIONAL LEARNER PREFERENCES

In research with large samples of VET learners, Smith (1999, 2000a, 2000b) demonstrated that learners exhibit:

- a low preference for self-directed learning,
- a high preference for learning in contexts that are instructor-led, where the program of instruction is well-organised, and where expectations of learners are made very clear by the instructor,
- a strong preference for learning in social environments, where there were warm and friendly relationships established between the learner and the instructor, and with other learners.

Although little other research is available on the learning preferences of VET learners, Beckett (1997) has observed that collegial contexts for learning have been a hallmark of VET instruction, and calls into question whether flexible delivery without considerable human instructor support can be successful. Smith (1999, 2000a, 2000b) concluded that VET learners were characterised by a field-dependent style (Witkin et al., 1977) with a need for structure in learning and a preference for social contexts rather than independence. He drew attention to the need to develop strategies to assist these learners to achieve an independent and self-directed approach (Kember, 1995) in a flexible learning context. Similarly to Boote (1998), Smith observed that the skills of metacognition were necessary among VET learners if effective engagement with flexible delivery in the workplace was to occur. The capability to successfully learn from others through social mediation has been observed by Brookfield (1985), though, as a legitimate and well-used strategy among successful self-directed learners.

RESEARCH FOCUS TWO - ASIAN VOCATIONAL LEARNERS

Working in an Indonesian context, Smith, Polgar and Suwarna (1996) showed that training and management personnel in Indonesian private sector enterprises did not feel that their workforces were ready for any form of independent learning. To the contrary, the majority view expressed was that instructor-led training was necessary. Also working with Chinese vocational learners in higher education, Smith and Smith (1999) have shown among these students a preference for learning programs to be structured by the teacher, rather than structured through self-direction. More recently, Smith (2000) has shown, at university level, that Chinese vocational learners of different nationalities (i.e. Malaysian, Hong Kong, Singapore) have varying degrees of these characteristics but, nevertheless, are still typified by a preference for instructor-led, well structured programs. Working with a more heterogeneous group of Asian learners, Andrews, Dekkers and Solas (1998) have established the same characteristics.

RESEARCH FOCUS THREE - THE WORKPLACE CONTEXT

This research (Smith, 2000b) investigated the support structures in place within Australian small and medium sized enterprises to support workplace learning. Our findings indicated that little support was provided in terms of:

- Clear and supportive training policies.
- Identifiable training structures and training personnel.
- Development of training personnel to support:

- Development of self-directed learning
- Acquisition of skills and concepts necessary for workplace productivity, and
- Development of a community of practice with shared learning experiences, work experience, and development of common work values.

Recent work by Brooker & Butler (1997) has also shown that there is room to doubt the effectiveness of support for apprentice learners in the workplace. Through interviewing apprentices and their trainers in Australian workplaces, Brooker & Butler (1997) have shown that apprentices rated highly those pathways to learning that involved structured learning and assistance from another more expert worker. Feedback on their work from more expert workers was highly valued. Brooker & Butler showed that learning or practising alone were not favoured pathways. These findings are consistent with Smith's (1999, 2000a, 2000b) findings that VET learners prefer structure and a social context for learning, but assign a low preference to independent learning.

Brooker & Butler's work also involved a detailed analysis of the learning structures put into place by six varied workplaces that employed apprentices. The findings of that part of their analysis indicated that only one of the six enterprises was able to outline a complete structure of training for their apprentices. Although all of the other five enterprises had incorporated some support structures for apprentice learners, there was considerable diversity in a context that none had well-developed structures. A summary of the interviews with trainers identified that workplaces were characterised by unstructured training, an expectation that the initiative to learn would come from the apprentice, apprentices work alone, that production imperatives often overtake learning objectives, and that feedback is only given on a completed job. These findings have been confirmed in other workplace research by Harris *et al.* (1998) and Smith (2000b). In the United Kingdom, Calder & McCollum (1998) have made similar remarks, particularly in the case of smaller enterprises. A study in Australia by the Victorian Office of Training and Further Education (1997) has shown a strong preference among small business operators for on-the-job training, but little commitment by those businesses towards learner support or the development of structures to support learning.

Evidence from these three research focuses, and from the broader research literature suggests then, that a combination of forces are in place that are likely to reduce the effectiveness of flexible delivery for the development of skills in the workplace. These forces are:

- A low preference among VET learners and Asian learners for independent learning, and a high preference for structured training in a social context (Smith, 1999, 2000a, 2000b; Smith & Smith, 1999);
- A need for the development of skills for self-directed and independent learners among VET learners (Boote, 1998);
- Poorly developed training and training support structures in the workplace (Brooker & Butler, 1997; Harris et al., 1998: Calder & McCollum, 1998; Smith, 2000b).

The current paper reports now on the development of a model to identify and provide the strategies required to prepare both learners and workplaces for training programs provided through flexible delivery.

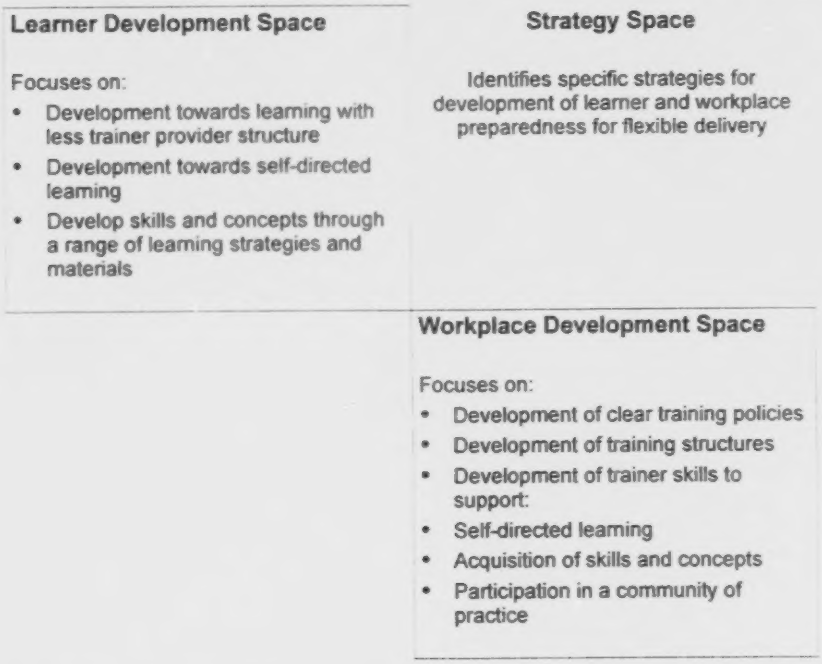
DEVELOPMENT OF SPECIFIC STRATEGIES

The model developed to identify and prepare strategies for effective use of flexible delivery and flexible learning in the workplace is shown in its barest form, at Figure 1 below.

The simple version of the model is shown as Figure 1, and provides for two dimensions of preparedness, each of which is associated in the model with a Development Space. The Development Space for learner preparation draws on our factor analytic studies (Smith, 1999, 2000a, 2000b) to prescribe three focuses for the development of preparedness. The first focus suggests that learner development be concentrated on assisting learners to be effective in a learning environment where the instructor provides less structure to the learner in terms of program detail, sequencing, tasks and learning outcomes. The second focus relates to the development of self-directed learning where the learner is able to set learning goals, and take responsibility for monitoring and adjusting that learning. The third focus provides for the learner to develop a stronger engagement with and liking for a wider range of learning presentation modes, such that learning is pursued and appropriated from a wider range of sources and types of material.

Within that framework of the three focuses for preparedness, specific characteristics for development are shown within the learner development space in the proposed model. These specific characteristics are adapted from the Kember (1995) model, but developed further through an analysis of the available literature. Continuing with the Kember (1995) and Brockett and Hiemstra (1991) two-dimensional models, the second dimension is one of workplace preparedness for effective flexible learning, and is portrayed at right angles to the first dimension. Associated with that dimension is the Workplace Development Space. Three focuses have been identified from the literature as describing the major components of workplace preparation. The first focus is the development of clear workplace training policies, while a second focus provides for the development of training structures within the workplace. The third focus relates to the trainer development needed to support the learner development processes identified as self-directed learning, acquisition of skills and concepts, and participation in a community of practice.

Figure 1: A model for the development of effective flexible delivery in the workplace



Learner Development Space

Focuses on:

- Development towards learning with less trainer provider structure
- Development towards self-directed learning
- Develop skills and concepts through a range of learning strategies and materials

Strategy Space

Identifies specific strategies for development of learner and workplace preparedness for flexible delivery

Workplace Development Space

Focuses on:

- Development of clear training policies
- Development of training structures
- Development of trainer skills to support:
- Self-directed learning
- Acquisition of skills and concepts
- Participation in a community of practice

The relationship between these identified focuses and those described in the Kember (1995) model is not as strong as with the learner preparation dimension. Kember's model was developed to describe the characteristics of higher education institutions, and was concerned with entry requirements, timetabling, access and program start and finish rigidity. These components do not readily translate to the workplace learning and production context. However, the Brockett and Hiemstra (1991) model provides for learning contexts broader than higher education. The focuses shown in the model and the specific items to be addressed within the workplace development space have been drawn from the present research and the literature. The supporting strategies are discussed later in this paper.

Our research and practice in the workplace has focussed on the development of very specific strategies to ensure effective flexible delivery for enterprise training. These strategies are brought together within the Strategy Space of the model.

DEVELOPMENT OF SPECIFIC STRATEGIES

Within the Strategy Space of the model, the specific strategies are developed to provide for learner and for workplace development that will enable preparedness for flexible delivery to be effective. We have developed a total of seventy-nine strategies, categorised into those designed to develop learner preparedness for effective flexible delivery in the workplace; and a separate set of strategies designed to enhance workplace preparedness for flexible delivery.

Within the strategies for learner preparation, the strategies are further categorised into those designed to develop self-directed learning; those to develop skills; and those to develop a community of practice. The strategies for workplace preparedness are also further separated into those relating to development of training policies; specific strategies to develop training structures; and a set of trainer development strategies.

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Research and technology — using technology in research — implications for researchers and the researched

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ABSTRACT

VET is a particular research context in which it is essential that the complexities of the workplace are taken into account. We contend that a number of tools, including sophisticated software packages, are available to facilitate such research. Providing that sound theoretical and methodological frameworks are not neglected, computer-assisted research in the VET sector has the potential to produce results more quickly with greater depth of analysis. Software packages, on their own but especially in combination, provide powerful tools for analysis of quite large multi-method studies. Some analytical packages considered include *NUD*IST* (Non-numerical Unstructured Data Indexing Searching and Theorising (QSR 1997)), *Excel* (Microsoft 1997a), *SPSS* (Nie 1997), *Quest* (Adams & Siek-Toon 1996) and packages like *MW Project* (Microsoft 1997b) and *MS Word* (Microsoft 1997c) for communication. Research on Dual Accredited Vocational Courses in New South Wales and a research consultancy in Bhutan are used to illustrate the power of these software packages singly and in combination.

INTRODUCTION

VET studies like most in the social sciences often demand answers to real world questions reasonable quickly. It is the contention of this paper that there are a range of tools available that can assist in these tasks. Thus the purpose of this paper is to consider the use of different tools that will assist in (1) methodological framework and design development, and (2) multi-method studies. It goes beyond the claims that complex qualitative studies can now be handled expeditiously through the advent of robust qualitative data analysis programs such as *NUD*IST* (cf Richards 1995). The paper will also contain illustrations of our use of such tools.

RESEARCH CONTEXT

Seddon (1998, 12) reports on two challenges she faced in a consultancy in VET in the Victorian TAFE sector: "how to investigate research in a sector that did not see itself as engaged in research" and "the problem of making recommendations that would meet the client's needs". Many people in the sector have little direct history as researchers, being researched, or using research and these issues produce difficulties for either in-house or external researchers. There is likely to be a certain wariness of the research outcomes if not of the researchers themselves. These reactions are in many ways no different from many other sectors of human affairs. They address the issues of how and what knowledge is created and who created it. Yeatman (1996) has made distinctions between analytical knowledge created by academics from research endeavour and ordinary knowledge production by people as they go about their work, that is, knowledge created by intuition, experience, and commonsense, for example. Experienced workers acquire knowledge as they apply their skills in a way that neophytes cannot hope to do (Hagar 1996, 236-7). There is often a tension between proponents of either type.

These issues of the nature of knowledge and knowledge production are further complicated by the necessary focus of VET research in the reality of the workplace. This means taking into account the particular situation of the work, especially the complex of persons involved and personal relationships, the intensity of the work situation as well as the amounts of time and money that are available. In the constructivist paradigm the researcher is not privileged and the constructions of the workers themselves are vital. The process of the research depends to a large extent upon the workers. This makes researching more complex than the relatively simple matter of setting up a laboratory experimental research design and implementing it in which case the VET workers are treated as objects, the archetypal positivist approach. Furthermore laboratory research creates a false situation and destroys the complexity that makes research in the workplace potentially fruitful.

Our response to complexity is to use what we call a research matrix (see below) in order to cope with the research questions and related methodologies that are developed in any real world research context such as VET.

THE RESEARCH MATRIX

We have found the research matrix to be a useful tool for our own research and for our students. A research matrix (see Table 1) lays out the central questions of the research (the rows of the matrix) against the sub-questions, the major literature associated with each question, the source of data, the data gathering techniques, the data analysis intended and indeed any other factors which are important to provide an overview of the whole research enterprise. The research matrix can be rapidly developed on most word processors or constructed graphically using concept mapping software such as *Inspiration*.

Table 1: Research Matrix

Research Questions	Sub-questions	Literature	Items/ Probes	How Collected	Data Source	Timing	How Analysed
Q1.	1(a)						
	1(b) etc	Insert Endnote reference markers		Method 1			
				Method 2 etc.	Source 1		
					Source 2 etc		
Q2.							
Q3. etc							

One of a number of benefits of the research matrix is its conciseness. The one page-type presentation provides an overview so that you can "see" the whole project. Gaps can be easily observed, for example, the relative balance in literature coverage of the research sub-questions. For complex projects it also provides a management device by including the "timing" column, at least in the broad sense. When a research team is involved, the research matrix and specialised planning programs like *MS Project* (see Figure 2 below) allow significant milestones for the research project to be identified and also communicated to, and monitored by, others in the research team. For the individual researcher, the research matrix also provides the point of referral when close involvement can lead to losing one's way. The powerful capacities of *MS Word* are well known and we used it simply because it was the one with which we had become familiar over a number of years and its capacity went far beyond our needs. We also found that *Endnote* (ISI ResearchSoft 1999) enabled us to more effectively use our bibliographic database developed over a number of years.

The research matrix construction also requires specificity. The idea of the research matrix builds upon our contention that in almost all research, unless a pure form of grounded research is being attempted, it is the research questions that guide all other decisions. Hence hard work on the wording of the questions in the first column precedes all other work. There is, however, some interaction between the questions and other dimensions of the research proposal development, for example, literature and time available, but the early focus should be upon a clear and precise definition of the research questions.

However, research questions themselves are framed within particular sets of assumptions. In very real ways these assumptions provide the conceptual tools with which the research is articulated in the form of the questions addressed in the research. Since no part of the real world exists in isolation from the way in which the human participants perceive it, any inquiry includes a process of image making on the part of the researcher. As each image is challenged by new discoveries, the researcher sets about the task of recasting that image to accommodate the new information. This is a process of interaction between the researchers and the object of their research that differs little from investigations in the objective scientific world and investigations in the social world (Hill, 1979; Guba, 1989).

The constructivist paradigm provides one such set of assumptions that seem to us to be appropriate for research in the social sciences in general and the VET sector in particular. This is simply because in the realm of human events it is the social constructions of reality of the participants that guide their actions. Questions underpinned by a constructivist approach can address real world actors' concerns. Within the constructivist paradigm qualitative and quantitative methodologies, which take account of the context of the event under study, and rely upon verification within that context, are very appropriate in many VET settings. Methodology in the social sciences has for too long been equated with that limited portion of scientific inquiry that deals only with advanced quantitative procedures. Such reliance ignores the underlying process of human insight, thought and action that depend upon human constructions of events (Blumer 1969).

We have observed that the real world is a complex context in which to research. New and innovative software technologies enable researchers to utilise modern constructivist approaches without sacrificing methodological rigour. Powerful computer-assisted analysis has the potential to produce results quickly and in great depth while being flexible enough to accommodate new or unexpected lines of enquiry that emerge from the data. The choice of new software technologies needs to be considered from the standpoint of the theoretical framework surrounding the research (Smyth 2000). For this reason, the researcher needs to clarify the research, for example, by using the research matrix as the focus for discussion. Having done so it is then possible to determine which computer-assisted tools are consistent with these methodological foundations.

POWERFUL TOOLS

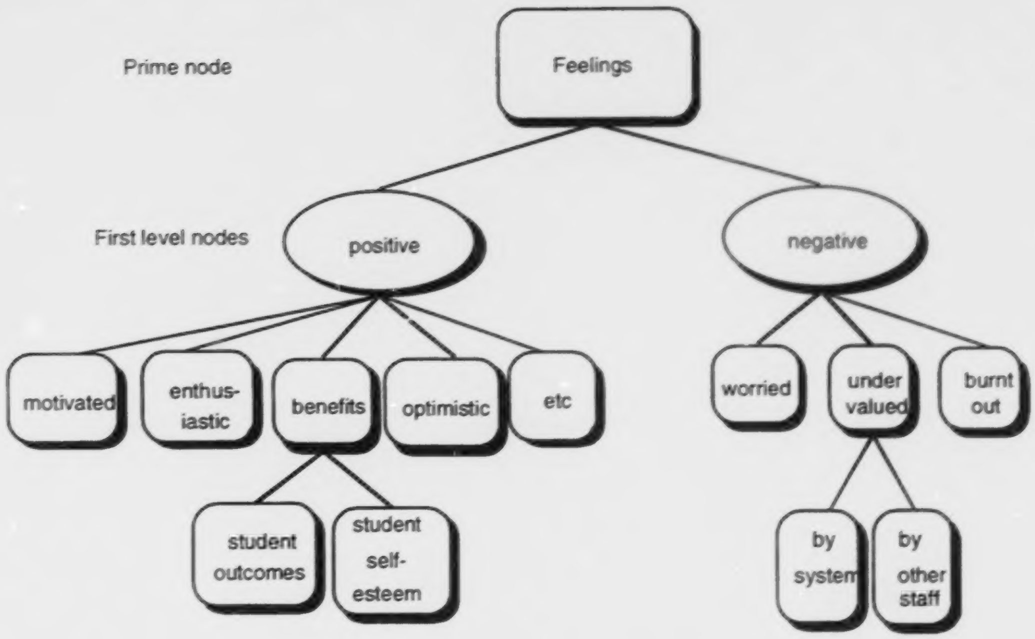
Presently there are powerful tools that can be used for handling the more complex real world research projects. Before we illustrate our use of these we first consider below some analytical software we have found to be useful: *NUD*IST* (and its stable mate *NVivo*) and Inspiration, *SPSS*, *Quest* and especially their use in combination. We certainly are not arguing that these are the only products that are useful. It is simply that we have found these to be reliable, powerful and helpful in the speedy completion of our research.

*NUD*IST* and *NVivo*

Using either *NUD*IST* or *NVivo* computer software assists in the process of authenticating and focussing research because both programs enable more complex analysis of unstructured responses than have previously been possible (Rolfe, Lloyd-Smith & Richards 1991). These Australian developed softwares have become amongst the leaders of packages in handling large amounts of unstructured data, particularly data captured as phrases and sentences, leading to their analysis and eventually theorising about these data.

*NUD*IST* and *NVivo* accomplish these tasks by first of all allowing researchers to create a network analysis in which a tree (for *NUD*IST*, see Figure 1 below) or relational network (for *NVivo*) is used to identify the content and structure of the data, for example, respondents' answers to questions (Fraser 1999; Richards 1999). Each node contains data consistent with the node definition. The series of inter linked categories, referred to as nodes, is developed as the analysis progresses. These nodes are then broken down further into a series of levels or sub nodes that further specify particular aspects or characteristics associated with each particular prime node. There develops an inter-linking tree-like structure that is useful as a tool for the identification of common themes within the often excessive bulk of complex data gathered in qualitative studies (Bliss, Monk, Ogborn with Black 1983; Cohen & Manion 1994). When using powerful tools such as *NUD*IST* or *NVivo* the researcher needs to be mindful that the quality of the analysis will be affected by the network structure used within the relational framework. Authenticity is a prime consideration (Guba and Lincoln 1989). To have authenticity, the system of nodes used in the analysis needs to be appropriate, sufficiently complete, and faithful to the purpose of the research. In addition, the tree of nodes should exhibit characteristics of clarity, self-consistency, flexibility and sufficiency of detail for the analysis to be meaningful. A relational tree or network should be able to be easily communicated to research stakeholders and to demonstrate the underlying authenticity criteria of fairness. To do this there must be evidence that the variety of constructions presented within the data have been honoured, communicated and faithfully acted upon (Guba and Lincoln 1989).

Figure 1: A *NUD*IST* Tree drawn in *Inspiration*



As qualitative analytical packages, *NUD*IST* and *NVivo* have considerable advantages. The use of the *NUD*IST* or *NVivo* tree can take two forms. Either the network can be tested as a theory against the data or the data can be tested against a theory or expectation using a network (Cohen & Manion 1994). Using the constructivist paradigm, it is preferable that the data, in combination with the literature, provide the source of the study's findings and not the preconceived expectation of the individual researcher acting in isolation. Ultimately, the most important feature of *NUD*IST* or *NVivo* is the flexibility and ability to honour and preserve the integrity of the multiple constructions represented in the data. Provided that the researcher encodes the network to accept the unexpected, the theoretical framework established earlier in the study can be built upon, or rebuilt. Through the tree structure the researchers are able to find new categories (new nodes) and new relationships amongst categories (move the nodes in the tree structure). *NVivo* (in particular) has the added potential to alert the researcher to trends and issues previously overlooked. Thus, it enables the researcher to preserve the integrity of respondents' multiple realities. Having the tree also allows researchers to discuss constructs and their definition.

*NUD*IST* and *NVivo* are linked to other programs. When more than one researcher is involved in analysis, that is, they are working on the same project at the same time, it is possible to combine the products of these analyses through a related program called Merge (QSR 1995) and between PC and Mac configurations. *NUD*IST* and *NVivo* are also compatible with Inspiration. This software is a concept mapping and project planning tool that the researcher can use to illustrate and communicate his/her conceptualisation of the research project and/or the relationships between important elements within the data. All diagrams can be exported into word processing documents for publication.

Statistical packages such as *SPSS* and *QUEST*

Statistical packages are usually essential when the research questions demand that large numbers of responses are required. Each has its own strengths and weaknesses. The descriptive and inferential capabilities of *SPSS* are well known and have been tested over a long period of time. Output can be descriptive and so, for example, summarise the range of ideas of respondents to a survey. Again when large numbers of perceptions are involved it may be possible to make inferences, for example, that there are differences in perceptions between groups. We have found

ACER's *Quest* (Adams & Siek-Toon 1996) to be helpful as well. *Quest*, based upon Rasch modelling, was designed as a test item-based analytical tool but, as with the example given below, it is also useful to test if the items do have a single structure and if they do then the items represent a unitary construct/concept. If they do not then additional work becomes necessary.

Software in combination

When quantitative and qualitative packages can be used in combination then the capacity to build the strengths of one into the outputs of the other means that complex studies using multi-method designs are possible. In this regard, *SPSS* and *NUD*IST* 4 interactions can be very useful. The interaction is possible through *NUD*IST*'s import and export tables facility (QSR 1997, 163-186). As a first example, it is possible to convert quantitative output from *NUD*IST* (from the number of hits in a *NUD*IST* matrix search) and introduce it to *SPSS*, producing a matrix of dependent and independent variables and subjecting these data to chi squared analysis using *SPSS*. The benefit of this is that in addition to the qualitative output from *NUD*IST*, complementary statistical data are also available to support or to question the case being made in the qualitative analysis. Furthermore, *NUD*IST* 4 has the great facility of being able to import a matrix such as biographical data for each case and link these data to the case's qualitative data. This is very useful when the biographical data are developed from a survey and open ended questions are to be analysed using *NUD*IST*.

Different quantitative packages can also be used in combination. For example, constructs verified by *Quest* can then be used in comparison with *NUD*IST* constructs (Smyth 2000) or in other statistical procedures, such as multiple analysis of variance (eg Laird, Maxwell, Tenzin & Jamtsho 1999).

ILLUSTRATIONS

The case studies below have been selected to illustrate our uses of various software packages.

Bhutan INSET study

The "Impact of INSET and Seven Year Plan" study in Bhutan (Laird, Maxwell, Tenzin & Jamtsho 1999) was designed to maximise the participation of in-country personnel as well as to address the brief of the project. Initial meetings with the Project steering committee provided the basis for negotiating the meaning of the Project brief. Subsequently the development of a research matrix (see Table 2) was the basis upon which the extent of the study was explored with the two counterparts (who with Laird and Maxwell formed the Project team) and with the Project Steering Committee. The Project finally involved over one hundred interviews and a survey of over 350 teachers, not to mention analysis of over 50 documents.

Table 2: INSET Research Matrix (modified)

[See overleaf.]

Table 2: INSET Research Matrix (modified)

Research Questions	Sub-questions	Items/Probes	How Collected	Data Source	How Analysed
1. What are the current INSET practices?	(a) How, and by whom, are courses designed?	1. What is the use of KSPT? 2. Who decides this? 3. Whose needs are satisfied?	Interview Collection	Course organisers, TTC, NIE, DEO. Reports	*NUD*IST* from transcripts
	(b) Whose needs are addressed?	1. Needs of teachers? 2. Needs of CAPSS curriculum developers?	Interview. Survey	Course organisers, teachers, head teachers	*NUD*IST* and *SPSS*
	(c) How, when, where and by whom are courses implemented? NB: Other sub-questions etc have been deleted	1. Are the implementers and the planners the same? 2. What strategies for learning are used? 3. When are the courses conducted? 4. Where are the courses conducted. 5. Is there follow-up? 6. Why?	Interview. Collection of reports	Course organisers and facilitators. Reports.	*NUD*IST* analysis.
2. What has been the impact of INSET?	(a) What is the usefulness of the courses that they have attended?	Items to be generated from Strawbridge and Jagar work plus others. Based on Fullan's materials, practices and beliefs.	Survey. Interview	Teachers and Principals. Course organisers.	*NUD*IST* and *SPSS*
	(b) Have these courses improved teachers' professional knowledge and skills as a teacher?	Items to be generated from Strawbridge and Jagar work plus others. Based on Fullan's materials, practices and beliefs.	Survey. Interview	Teachers and Principals. Course organisers.	*NUD*IST* and *SPSS*
	(c) Have these courses improved teachers' personal education? NB: Other sub-questions have been deleted		Collection of reports. Interview. Survey.	Reports. Course organisers. Teachers and Principals	*NUD*IST* and *SPSS*.
3. How might INSET be improved?	(a) In what ways might the system-wide inservice program model be changed to make it more useful to teachers and others?	KPST variations. Change of/additional focus (Tension between teacher and centre needs)? Identification of principles? Change of model of INSET? Change of articulation between different levels? Administrative procedures? Different thinking about the change process?	Interview, possibly short questionnaire to DEOs.	INSET leaders. Inspectors, DEOs	*NUD*IST* And *SPSS*
	(b) What needs to be improved about inservice courses to make them more useful for participants?	Items to be generated from Strawbridge and Jagar work plus others.	Interview. Survey	Organisers and Teachers and Principals. Teachers and Principals	*NUD*IST*

Our use of electronic software to manage the communication about the Project and the analyses required in the Project was quite extensive. *MS Project* (see Figure 2 for a Gantt view of the early stage of our INSET Project) enabled the identification of critical pathways and also provided a view that clearly set out who was responsible for what tasks and by what date. This view provided by *MS Project* was particularly useful in informal discussions within the team (often in front of the coloured printout posted on the wall) and in formal settings such as Steering Committee meetings.

Figure 2: Gantt Chart of Early INSET Work

[See overleaf.]

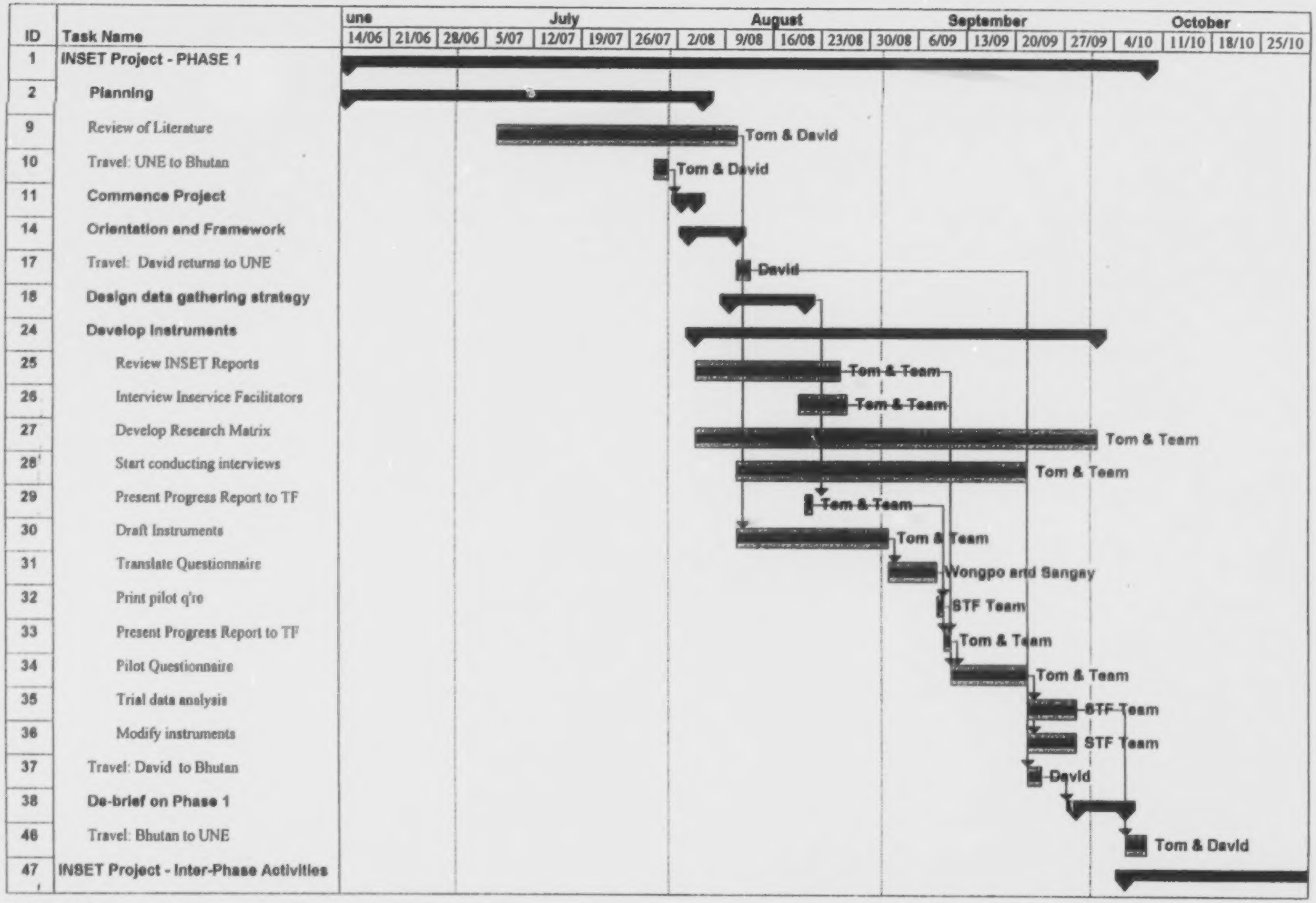


Figure 2: Gantt Chart of Early INSET Work

Another important use of *MS Project* was the printout for the period when both Laird and Maxwell were back in Australia, so they and the counterparts in Bhutan were working to the same schedule. During this period *Quest* was used to verify important constructs from the survey and so they could be used as the basis for multivariate analyses of variance. In the last two months of the Project, *QSR Merge* was used with a minimum of fuss to combine different branches created by different researchers of the same *NUD*IST* project. The display capacity of node definitions within *NUD*IST* was important in clarifying meanings and the *NUD*IST* tree was the basis of many informal team discussions about the relations amongst nodes (constructs). Especially in these final two months the shared work was greatly facilitated by having hardware and software setups that were compatible and virus free and having access to our own printer and zip drives, the latter especially important in backing up and merging large *NUD*IST* projects.

DUAL ACCREDITED VOCATIONAL COURSES

We argued above that the constructivist paradigm is the most appropriate one in which to work in most if not all VET research projects and that such projects are likely to be complex A constructivist paradigm relying on an hermeneutic approach was chosen to capture a holistic picture of the reality surrounding the introduction of Dual Accredited Vocational Courses into the senior secondary curriculum in New South Wales (Smyth 2000). It captured participants' opinions and feelings as they implement a major educational initiative that required both structural (school routines etc.) and curriculum (content and pedagogical) changes.

The research was planned using a research matrix and the design is based on a strong theoretical framework that takes Fullan's (1991) theory of educational change as a starting point Habermas' orientations to knowledge formation (Grundy 1987). For each of the key issues in educational change identified in the framework the characteristics of the change management style are deconstructed to uncover the orientation to knowledge formation that appears dominant. The theoretical framework supports the content of the instrument, the intent of its design and the methodology underpinning the analysis of the data that results. Computer-assisted analysis of data from open-ended questions and Likert Scales is justified from this standpoint.

Rating Scale Analysis (Rasch modelling) is the primary statistical analysis used to measure the fit of the Likert scales to the constructs that they aim to test. Such analysis provides a measure of the probability of an indicative event occurring, whilst leaving room for uncertainty within the measurement. It is a quantitative technique that aligns quite well with constructivist work that aims to provide clarity through consensus and the joint construction of knowledge about an event or process (Guba & Lincoln, 1994). Using *Quest* (Adams & Siek-Toon 1996) software, the Rasch analysis has established the consistency of the Likert scales in the study as single analytical constructs by establishing item and case reliability. Item reliability estimates the probability that items test the opinions that they are intended to test and case reliability estimates the degree to which respondents have recorded responses in a pattern that is consistent with statistical expectations for a sample of its size (Wright & Masters 1982; Adams & Siek-Toon 1996). *Excel* (Microsoft 1997a) spreadsheets provide graphical representations of the data contained in the sub-sections of the construct and provide additional quantitative evidence supporting the analysis of qualitative data using *NUD*IST Vivo* Software.

*NUD*IST Vivo* (QSR 1997), as we have set out above, allows detailed coding and mapping of unstructured written responses and facilitates searching for patterns and themes. Any themes that emerge are cross-referenced to the structured data from the survey (Likert scales) because the instrument contains free response and rating scale options for all research questions. Thus the analysis of quantitative data from the Likert scales enriches the qualitative analysis of open responses and vice versa.

In summary, it is quite clear that completing projects of such size and scope was made possible only with the assistance of high quality software using laptops of sufficient capacity. In this regard the capability of *NUD*IST* in particular was crucial in the handling of large data sets involving largely qualitative but also some quantitative data. MS Project was a most useful communication tool and planning device.

CONCLUSIONS AND IMPLICATIONS

In this paper we assumed that the speed capacity of modern computers and argued that particular software is ideally suited for research in VET. This argument was made from two points of view: that of the researcher and that of researchers' colleagues. For the researcher we showed that software packages, especially in combination provided the power to analyse large amounts of data as well as to communicate with one another and with others involved in the research. For the researchers' colleagues the benefit was that the software, again singly or in combination had the potential to produce results that were appropriate for the real world perspectives of VET workers. For us this argument was underpinned by a commitment to the constructivist research paradigm which also allowed the collection of quantitative and qualitative data to address the research questions.

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Implementing Training Packages: bringing learning into focus

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INTRODUCTION

Since the early 80's vocational education and training in Australia has been evolving from a model defined by inputs [ie, curriculum] to a model defined by outputs [ie, competencies]. The introduction of Training Packages is a quantum leap in this evolution requiring greater reliance on the professional skills of teachers and trainers and on more robust and flexible administration and information management systems than previous forms of competency based training required.

To enable the best use and outcomes of Training Packages for the nation, industry and learners and providers of training need to consider the development of strategies to

- ensure quality learning processes and course design
- support the professional advancement of teachers and trainers
- advance systems to support the learning process including reporting and recording of outcomes.

Judgements on the effectiveness of Training Packages will be made on the basis of the quality of the product as well as the process of implementation. To date the attention of this latest model of vocational education and training has been on the development of the 'product' and as we move onto implementation the focus will move to concentrating on how to make competency happen within the prescribed arrangements of Training Packages. Hence it is critical that we establish a balance between 'product' and 'process' rather than to imply that Training Packages are just more of the same only expressed differently.

CONTEXT OF NEW LEARNING

There will be over 50 endorsed Training Packages covering 80 % of Australian workforce by 2000 with an expectation of full implementation commencing in January, 2000. Training Packages are supported by a framework of qualifications and recognition processes and aim to provide flexible, responsive, quality and consistent delivery. David Kemp, Minister for Education, announced recently that the Federal Government is providing an additional $8 million to support the implementation of Training Packages and a further additional $10.5 million to ANTA to support materials production. As from the start of 2000, the majority of the $8 billion of government funds spent on vocational training in Australia will be in Training Packages and PETE anticipates that RTO will be prepared to enrol in Training Packages at this time. It is now generally acknowledged that the provider is the key to this new system and way of doing business with industry having prescribed the outcomes.

> The tenure and skills of teaching staff in public providers will impact on training provision particularly in the participation in professional development activities to support implementation. In the TAFE sector in Victoria
>
> • 53% of teachers are in tenured positions
> • 33% of teachers are on fixed term contracts, usually of 9 - 12 months duration
> • 14% of teachers are sessional.
>
> In addition the total teaching staff has remained the same from 1993 - 1998 at a time when there has been an increase of about 10% in total provision [SCH]. (Malley 1999)[1]

It is this group of committed people who need to understand and be able to interpret and customise Training Packages for a range of audiences; in short, to make the new system work. It is this group of people who have toiled through nearly 10 years of fairly continuous turbulence and change. They have had to deal with the additional factors impacting on the system such as globalisation and internationalisation, technological change, outsourcing, user choice and competitive tendering, reduced funding and maintenance of quality, restructuring and re-positioning in the marketplace and finally organisational and cultural change to meet these challenges. This change has led to a sharpening of provider orientation and increased focus on the needs of the client.

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[1] Malley, J., Hill, R., Putland C., McKenzie P., Trends in the TAFE Institute Workforce, PETE/CEET, March, 2000

In this new and emerging world of Training Package teachers need to be able to

- customise activities necessary to meet the range of needs of industry/unions/employer/learners
- interpret Training Packages into learning programs whilst still being highly accountable to central system
- develop learning pathways and resources for a range of Training Package qualification outcomes
- provide flexible and consultative approaches to clients including
    - delivery of underpinning skills
    - provision of skill development processes that are in multi-mode delivery formats, suit individual learning processes, integrate 'workplace' assessment that is fair, reliable and consistent, ensure articulation and transferability of skill recognition arrangements, have a variety of reporting and recording of outcomes [modules and competencies], ensure quality skill development and maintain equivalence of outcomes cross a range of Training Package qualifications.

> Unfortunately clients may not always be clear or even know what their needs are. So teachers will need to be better at working with a variety of clients and assisting them in this task and developing genuine partnerships with industry that result in mutual benefits and long term strategic value. The elements of best practice in conducting partnerships with industry are
>
> - understanding the business and the relationship between training and profitability of the enterprise
> - being available
> - sharing knowledge and expertise
> - managing the relationship
> - collaborating with competitors with a view to the best outcome for the client.
>
> (Thom 1999) [2]

There is an increasing focus on learning and consequentially teaching. This learning may occur on job and off job and may be government funded, employer funded or self funded. We are also seeing the emergence of a new value of learning - learning for life. Increasingly workers in most sectors will move in and out of training to ensure relevant employability skills and regular skill upgrade for work application.

Barry Hobart, Chief Consultant to UNESCO UNEVOC Centre in Berlin noted that VET teachers and trainers have the most crucial role and responsibility to assist in this development. They

> ...must undertake programs of initial and recurring professional development and need to be involved in continual upskilling and updating on changes and new requirements of the workplace so that they can continue to adapt to the rapid change and be relevant. (Hobart 1999, p12)[3]

The challenge for today's educator is

- we can ignore Training Packages as another fad and delude ourselves that things can stay the same

OR

- we can maximise the tremendous opportunities that Training Packages offer and the subsequent change that they bring.

Dr Qian Tang, Head of the TVE Section of UNESCO is quoted at the recent UNESCO International Congress on Technical and Vocational Education for the 21st Century (1999) held in Seoul as saying 'When the winds of change blow, some build walls, others build windmills'[4]. If we don't embrace the positive opportunities that Training Packages offer to rejuvenate the training system and begin to interpret the fundamental differences of Training Packages to past practices; and if we don't begin to grapple with the new system and support modifications necessary to make Training Packages work, then we will have more of the same, mediocre outcomes and disinterested, and industry that is disaffected from the value of accredited training. In a recent survey conducted by AC Nielsen Research Services it was noted '...that 76% of employers found graduates who applied for jobs to be unsuitable for either the position applied for or any other position in the company' (AC Nielsen, February 2000)[5]. The challenge is here and the choice inevitable - change is critical if graduates are to get jobs and industry is to be confident in the education and training system. To be judged to be irrelevant in this sphere of industry relevant training, will lead to our ultimate demise.

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[2] Thom, F., ANTA National Conference - Spotlight on the Provider, December, 1999

[3] Grace, B., Going Global, Training Review Oct/Nov/Dec. 99, No. 32 (P. 12 - 13)

Moira Scollay, CEO - ANTA, acknowledges the need for further support of the implementation of Training Packages and '..the size of the task cannot be underestimated. Achieving full implementation of all the policy reforms still requires a substantial cultural shift in how training is delivered and valued.' (Scollay 1999)[6]. To support this cultural shift state training bodies need to develop a range of responses including

- professional development activities
- opportunities for cross-provider networking
- funds to pilot responses and innovation in implementing Training Packages
- policy frameworks to inform operational activities and infrastructure design
- online, responsive and flexible communication strategies to inform providers of implementation issues
- publications and manuals promoting best practice in the interpretation and design of courses aligned to Training Packages

So we are at the cross-roads; the train is speeding towards us; the choice is clear; we must embrace Training Packages and embrace the definite advantage that they herald for our work. In conclusion they are the strongest endorsement in recent times for the need, requirement and insistence for quality teaching and learning practices.

The questions that we need to ask are:

- How do we take up the challenge and engage in this exciting way of doing our work ?
- What is involved in implementing Training Packages ?
- What are the issues to explore when bringing Training Packages to ground ?

Firstly Training Packages are flexible. The national system is still evolving and not all the questions have been asked nor all of them answered. Training Packages can be interpreted in a myriad of ways with 'no one size fits all'. However, the training and outcomes must have integrity and be delivered with quality.

Secondly teachers need to be skilled in how to interpret the needs of the clients, how to customise the training to meet these needs, and to how interrogate Training Packages to design programs in 'chunks' of learning that make sense to the learner and that align to the standards and how to develop a delivery plan that allows for dynamic learning experiences that ensure competency outcomes.

Thirdly the academic and information management systems that underpin the implementation of Training Packages need to be equally flexible and allow for quality responses to the various provider clients and stakeholders such as government funding bodies, employers and students. No longer will a single management system of information management and reporting be sufficient in satisfying all of these groups and this means a more significant dialogue between the teaching and student administration/management sections of providers. For it is through these conversations that the intricacies of the new system can be managed such as the accommodation of

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[4] Wiltshire, K., The Ginseng in the Stew, Training Review Oct/Nov/Dec. 99, No. 32 (P.10 - 11)

[5] AC Nielsen Research Services, Employer Satisfaction with Graduates, AVCC Report, February 2000

[6] Scollay, M., CEO's Message, Australian Training Volume 6 Issue 4 December 1999, (P. 3)

- reporting competency completions to the funding body whilst also reporting regularly to students and employers on progress and achievement within a competency
- allowing for multiple enrolments in a single competency in order for a variety of specialist skills to be achieved by the student
- providing evidence and record of achievement in the instance of partial completion of competencies
- providing a record of achievement that will facilitate articulation/credit exemptions into higher education courses and transferability of skill recognition between providers
- ensuring ethical and transparent reporting to funding bodies.

Fourthly the role of those involved in general education has become less clear and discernible. There are few units of competency and elements of competency that explicitly deal with the assessment of general skill competencies such as communication skills. However, there is always mention of such competencies in the underpinning skills and range of variables. Teachers need to begin to work collaboratively across discipline areas to 'unpack and re-pack' Training Packages and to design learning programs and pathways that build towards holistic delivery and assessment of industry skills and enterprise [generic] skills. Richard Hall notes in his research of the impacts of globalisation on the industry training market that

> ...future reform needs to build on previous initiatives to establish new mediating structures that enhance co-ordination between all the elements of (these) industries skill formation systems[7]. Strategies that will assist and encourage collaboration are
>
> - mentoring of teachers of industry skills by teachers of general skill areas
> - team teaching
> - development of integrated approaches to learning and delivery
> - collaborative and co-operative support to Course Teams
> - development of integrated learning materials
> - provision of student support materials and sessions in enterprise/generalist skill areas
> - encouragement of accelerated learning in core industry skill areas where appropriate which then allows for time and attention for achievement of enterprise/general skills
> - development of assessment tools and approaches that integrate industry skill and enterprise/general skill assessment.
>
> (Hall 1999, p5)

Fifthly and most importantly professionalism of teaching is being redefined as the shift inherent in achieving the competencies detailed Training Packages means an increased focus on the process of learning. It is no longer simply what is presented in the classroom or the resource materials but is also the understanding that teachers have on how learning happens, is promoted and encouraged. It is the quality of the program design and how the competencies have been grouped and integrated to make sense to the learner as well as strategies to ensure industry and skill formation generally. The learning experiences and relationships between experiences; and the quality and nature of the holistic assessment leading to the achievement of competencies that teachers will be judged by and accounted for. Teachers need to heighten their passion for learning and to shift the focus from traditional approaches centred on the classroom to more flexible problem solving approaches in which the learner is central to the process of learning and competency achievement.

CONCLUSION

Quality teaching practices, learning environments and student centred approaches are essential especially if the positive outcomes of Training Packages are to be truly realised and embedded at a very fundamental level into the operations. Dr Roland Williams, President of Business Higher Education Round Table notes that

> Each sector must recognise the criticality of preparing people for the world as it is and it is likely to be, as opposed to that which is rapidly vanishing. Institutions which fail to grasp this reality have what is surely a brief life expectancy'.[8] (Williams 1999, p1)

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[7] Hall, Richard (July, 1999), Globalisation and the Industry Training Market: Recent Policy and Practice in the Information Technology, Metal and Engineering Industries, Paper presented at the 8th National Vocational Education and Training Research Conference, Australian Centre for Industrial Relations, Research and Training, University of Sydney (P. 5)

In summary Training Packages have the potential to revitalise learning and to bring learning back into the equation of training but only if

- students are the centre point for learning process design
- teachers are confident and skilled in the process of learning and program design
- providers have flexible and robust information management and administration systems to support innovative program design
- State Training Systems have extensive professional development programs that maximise developments and understanding across organisations and disciplines.

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8 Williams, R., Lifelong Learning in the New Millennium, BHERT News, Issue 6, October 1999

Trainee and apprentice retention and attrition in Australia

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INTRODUCTION

This paper presents preliminary results for the NREC funded project The Australian Apprenticeship and Traineeship System: factors that contribute to retention and completion rates for apprentices and trainees.

The purpose of the study is to examine the range of factors that contribute to high retention rates and successful completion of apprenticeships and traineeships. The outcome of the study will therefore be an understanding of how a range of personal, demographic, structural, economic, educational, political and environmental factors contribute to the observed retention and completion rates across a number of occupations where a variety of learning pathways are used.

The key research questions of the study fall into five categories:

- the nature of cancellations and withdrawals
- the nature of the factors that contribute to successful completion
- patterns of retention rates between various clients groups and the factors underpinning these patterns
- those factors most amenable to bringing about increases in completion rates and improved retention rates
- the implications of the research.

The project team are using both qualitative and quantitative methods to collect and analyse data. The initial phase involves an analysis of existing trainee and apprentice data to identify factors that positively or negatively contribute to the retention and completion of traineeships and apprenticeships in Australia. The second phase of the research will involve interviews with a variety of stakeholders (eg, trainees and apprentices, employers, state training authorities) to elicit further information and to examine factors underpinning the identified patterns.

This paper presents the findings from the first part of the data analysis and looks at the nature of cancellations and withdrawals. It is based on data from the trainee and apprentice collection for the period 1995 to 1998, as supplied by NCVER.

Notes on the data

1. The way in which the data has been collected (up to this point) does not allow for easy separation of traineeships and apprenticeships.
2. Contract status categories are those as supplied by NCVER and therefore use the standard definitions contained in NCVER publications.

OVERVIEW OF WITHDRAWALS, CANCELLATIONS, EXPIRIES AND SUSPENSIONS

83.7% of withdrawals occur within the first 12 months, with 73.7% occurring in the first six months and 57.3% occurring in the first three months. (Withdrawals occur during the probationary period.) Interestingly, 12.3% of all withdrawals in NSW occur after the first year.

65.5% of cancellations occur within the first 12 months, with 36.0% occurring in the first six months. (Cancellations occur after the probationary period).

52.9% of expiries occur within the first 12 months (mainly at the end of the first year).

46.1% of suspensions occur during the first 12 months, with 28.7% in the second year and 17.4% in the third year. This classification is predominantly used in WA and SA.

THE NON-COMPLETION FACTOR (NCF)

One issue with the trainee and apprentice data collection is the difficulty of linking one year to the next. Consequently, a "slice in time" approach can be a useful way of determining the relative tendencies between groups. The problem with this approach is that it does not really take into account the number of trainees and apprentices "in training" at the commencement or at the end of the period, nor does it take into account changing numbers of trainees and apprentices. It also does not take into account trainees and apprentices who may have suspended and recommenced during the period.

Assuming a given period of time, however, the number of "starts", "terminations" and "non-completing terminations" can be determined. Their definitions are as follows:

Starts = commencements + recommencements
Terminations = withdrawals + completions + expiries + cancellations + suspensions
Non-completing terminations = terminations - completions

Because of the different proportion of trainees and apprentices which may be "in training" in different groups, it is useful to take the ratio of non-completing terminations to completions as a measure of the likelihood of a member of a particular group completing or not completing their contract of training.

We therefore have the non-completion factor (NCF), which is defined as:

NCF = non-completing terminations ÷ completions.

An NCF of 1 would therefore indicate that members of the group in question would be as likely to withdraw / expire / cancel / suspend as they would be to successfully complete their contract of training. An NCF of more than 1 would indicate that members of the group are more likely to withdraw / expire / cancel / suspend than they are to successfully complete their contract of training.

FACTORS AFFECTING COMPLETION OF CONTRACTS OF TRAINING

Location

Table 1 shows the variations in contract status according to the state in which apprentices and trainees are contracted.

The results indicate that apprentices and trainees in the Northern Territory have the highest non-completion factor, which means that they are more likely to terminate their contract of training by withdrawal / expiry / cancellation / suspension.

NSW and the NT have higher than average proportions of withdrawals and the ACT has no withdrawals at all during the period 1995-1998.

The ACT, NT, Victoria, Queensland and South Australia all have higher than average proportions of cancellations.

South Australia and Victoria have higher than average proportions of expiries.

South Australia and Western Australia have higher than average proportions of suspensions.

The above results could indicate some differences in administrative procedures between the states / territories.

The above results show that, clearly, there are variations in the way different states / territories use the contract status categories.

Table 1: Variations in contract status by location

Contract Status	NSW	VIC	QLD	WA	SA	TAS	ACT	NT	Australia
Commenced	105055	104436	111278	37222	35602	14678	7568	5814	421653
Recommenced	14710	11819	7699	2286	1307	378	563	304	39066
Total Started	**119765**	**116255**	**118977**	**39508**	**36909**	**15056**	**8131**	**6118**	**460719**
Terminations as a percentage of "starts"									
Withdrawn	21.26%	3.63%	7.06%	3.16%	6.33%	3.92%	0.00%	14.43%	9.36%
Completed	42.14%	33.29%	33.86%	30.88%	45.40%	47.06%	44.41%	34.59%	37.16%
Expired	2.66%	7.48%	4.10%	2.09%	7.91%	1.90%	4.39%	0.15%	4.59%
Cancelled	19.09%	31.05%	27.02%	18.63%	25.29%	15.85%	33.97%	31.64%	24.94%
Suspended	0.02%	0.05%	0.00%	3.78%	7.38%	0.00%	0.09%	0.65%	0.94%
Total terminated	**85.17%**	**75.50%**	**72.05%**	**58.54%**	**92.30%**	**68.74%**	**82.86%**	**81.46%**	**77.00%**
Total not completed	**43.03%**	**42.21%**	**38.19%**	**27.65%**	**46.90%**	**21.67%**	**38.45%**	**46.88%**	**39.84%**
Non-completion factor	**1.02**	**1.27**	**1.13**	**0.90**	**1.03**	**0.46**	**0.87**	**1.36**	**1.07**

Gender

Table 2 shows the variations in contract status according to gender. The results indicate that females are slightly more likely to terminate their contract of training without completing.

Table 2: Variations in contract status by gender

Contract Status	Males	Females	Total
Commenced	269231	152422	421653
Recommenced	28353	10713	39066
Total Started	**297584**	**163135**	**460719**
Terminations as a percentage of "starts"			
Withdrawn	9.1%	9.8%	9.4%
Completed	39.4%	33.0%	37.2%
Expired	4.7%	4.5%	4.6%
Cancelled	26.1%	22.9%	24.9%
Suspended	1.1%	0.7%	0.9%
Total terminated	**80.37%**	**70.86%**	**77.00%**
Total not completed	**40.93%**	**37.84%**	**39.84%**
Non-completion factor	**1.04**	**1.15**	**1.07**

Age

Table 3 shows the variations in contract status according to age. The results contained in the table are difficult to analyse because of the issue of time. For example, the table shows a very high non-completion factor for 15 year old trainees and apprentices. This is most likely due to the fact that someone commencing at 15 years old will be aged 16 to 19 years when they terminate their contract of training. This fact would (at least partly) account for the trend of a decreasing non-completion factor for trainees and apprentices aged 15 to 19 years and the relatively high completion rate of trainees and apprentices in the 20 to 24 years age group. Consequently, variation in completion rates due to age will require further work based on the duration of the contract of training.

Table 3: Variations in contract status by age

Contract Status	14 or less	15	16	17	18	19	20 to 24	25 to 29	30 to 39	40 and over	Total
Commenced	247	5284	28511	49469	70678	53404	101241	37173	39206	36440	421653
Recommenced	2	62	585	2156	4587	6802	21486	2151	932	303	39066
Total Started	**249**	**5346**	**29096**	**51625**	**75265**	**60206**	**122727**	**39324**	**40138**	**36743**	**460719**
Terminations as a percentage of "starts"											
Withdrawn	3.6%	5.9%	6.7%	8.7%	8.8%	10.8%	11.5%	8.8%	7.8%	6.9%	9.4%
Completed	0.0%	0.2%	1.6%	6.1%	9.2%	27.6%	88.4%	39.9%	27.3%	24.1%	37.2%
Expired	0.0%	0.1%	0.4%	0.8%	1.5%	3.2%	8.6%	8.1%	5.7%	4.2%	4.6%
Cancelled	4.8%	5.8%	7.5%	13.8%	18.9%	32.2%	40.4%	25.1%	18.6%	12.8%	24.9%
Suspended	0.0%	0.2%	0.3%	0.7%	0.9%	1.4%	1.5%	0.6%	0.5%	0.4%	0.9%
Total terminated	**8.4%**	**12.2%**	**16.4%**	**30.2%**	**39.4%**	**75.2%**	**150.4%**	**82.5%**	**59.9%**	**48.5%**	**77.0%**
Total not completed	**8.4%**	**12.0%**	**14.8%**	**24.1%**	**30.2%**	**47.6%**	**61.9%**	**42.6%**	**32.6%**	**24.3%**	**39.8%**
Non-completion factor	**N/A**	**58.09**	**9.57**	**3.94**	**3.26**	**1.72**	**0.70**	**1.07**	**1.19**	**1.01**	**1.07**

Ethnicity

There are three fields containing information about a person's ethnicity. These fields relate to a person's country of origin, language spoken at home and ATSI status. Tables 4 to 6 show the variations in contract status due to these factors.

Table 4 shows that trainees and apprentices from North Africa and the Middle East are about 1.6 times more likely to terminate their contract of training through withdrawal / expiry / cancellation / suspension than they are to successfully complete it.

Table 5 shows that the highest non-completion factors are for students speaking other languages (American, African (excluding North African), Oceanic Austronesian, Pidgins and Creoles, Papuan, invented and sign) and for students speaking Australian indigenous languages, south-west Asian and North African languages.

Table 6 shows that ATSI trainees and apprentices are 2.4 times as likely to terminate their contract of training without completing than they are to complete their contract of training. Further, a comparison between the Tables 4, 5 and 6 shows that ATSI students are the most likely ethnic group to experience difficulties in completing their contracts of training.

Table 4: Variations in contract status by country

Status	Oceania and Antarctica	North-West Europe	South + East Europe	N Africa + Mid-East	South-East Asia	North-East Asia	South + Central Asia	Americas	Sub-Saharan Africa	Other	Total
Commenced	338016	11134	3231	1194	4569	842	1179	1794	1643	58051	421653
Recommenced	35765	634	272	173	300	57	36	156	124	1549	39066
Total Started	**373781**	**11768**	**3503**	**1367**	**4869**	**899**	**1215**	**1950**	**1767**	**59600**	**460719**

Terminations as a percentage of "starts"											
Withdrawn	9.7%	9.2%	10.6%	17.9%	12.0%	15.2%	10.0%	12.6%	10.2%	6.8%	9.4%
Completed	31.9%	25.4%	24.7%	26.8%	26.7%	24.7%	21.8%	25.9%	26.4%	75.2%	37.2%
Expired	3.3%	3.4%	3.1%	4.2%	3.0%	3.4%	2.1%	3.8%	3.5%	13.5%	4.6%
Cancelled	24.2%	19.2%	17.8%	20.5%	19.1%	17.6%	16.1%	23.1%	23.4%	32.1%	24.9%
Suspended	1.0%	1.7%	1.1%	0.4%	0.5%	0.3%	0.2%	0.3%	1.2%	0.4%	0.9%
Total terminated	**70.1%**	**58.8%**	**57.3%**	**69.7%**	**61.3%**	**61.3%**	**50.1%**	**65.7%**	**64.7%**	**128.2%**	**77.0%**
Total not completed	**38.1%**	**33.4%**	**32.7%**	**42.9%**	**34.6%**	**36.6%**	**28.3%**	**39.8%**	**38.3%**	**53.0%**	**39.8%**
Non-completion factor	**1.19**	**1.32**	**1.32**	**1.60**	**1.29**	**1.48**	**1.30**	**1.53**	**1.45**	**0.70**	**1.07**

Table 5: Variations in contract status by language

Languages Contract Status	North European	South European	East European	South-west Asian + N. African	South Asian	South-east Asian	East Asian	Australian Indigenous	Other	Not known	Total
Commenced	296711	7099	3170	2742	893	2458	1174	2276	840	104290	421653
Recommenced	25530	1117	365	556	26	152	84	76	38	11122	39066
Total "Starts"	**322241**	**8216**	**3535**	**3298**	**919**	**2610**	**1258**	**2352**	**878**	**115412**	**460719**
Terminations as a percentage of "Starts"											
Withdrawn	9.8%	15.1%	14.3%	24.0%	13.2%	13.7%	16.7%	14.4%	19.8%	6.8%	9.4%
Completed	27.2%	31.4%	29.3%	24.7%	22.7%	26.5%	25.6%	22.4%	18.9%	66.8%	37.2%
Expired	3.0%	3.0%	3.0%	3.0%	1.8%	2.3%	2.9%	4.2%	2.2%	9.4%	4.6%
Cancelled	22.4%	20.3%	19.0%	18.6%	14.6%	16.3%	16.7%	28.0%	19.7%	33.1%	24.9%
Suspended	1.1%	1.0%	1.4%	0.2%	0.1%	0.7%	0.2%	0.3%	0.2%	0.4%	0.9%
Total terminated	**63.5%**	**70.8%**	**66.8%**	**70.6%**	**52.4%**	**59.5%**	**62.2%**	**69.2%**	**60.8%**	**116.5%**	**77.0%**
Total not completed	**36.3%**	**39.4%**	**37.6%**	**45.9%**	**29.7%**	**33.0%**	**36.6%**	**46.8%**	**41.9%**	**49.8%**	**39.8%**
Non-completion factor	**1.33**	**1.26**	**1.28**	**1.86**	**1.31**	**1.25**	**1.43**	**2.09**	**2.22**	**0.74**	**1.07**

Table 6: Variations in contract status by ATSI status

Contract Status	ATSI	Not ATSI	Unknown	Total
Commenced	14499	304602	102552	421653
Recommenced	579	24336	14151	39066
Total Started	**15078**	**328938**	**116703**	**460719**
Terminations as a percentage of "starts"				
Withdrawn	11.1%	10.5%	6.0%	9.4%
Completed	21.8%	23.8%	76.9%	37.2%
Expired	7.9%	2.2%	10.9%	4.6%
Cancelled	32.2%	20.5%	36.6%	24.9%
Suspended	1.1%	0.9%	1.1%	0.9%
Total terminated	**74.1%**	**57.8%**	**131.6%**	**77.0%**
Total not completed	**52.3%**	**34.0%**	**54.7%**	**39.8%**
Non-completion factor	**2.40**	**1.43**	**0.71**	**1.07**

Disability

Table 7 shows the variation in contract status due to disabilities. The results indicate that although trainees and apprentices with disabilities have similar withdrawal, expiry, cancellation and suspension rates to those without a disability, their completion rate is lower. This effectively gives them a higher non-completion factor.

Table 7: Variations in contract status by disability status

Contract Status	Disability	No Disability	Total
Commenced	8699	412954	421653
Recommenced	487	38579	39066
Total Started	**9186**	**451533**	**460719**
Terminations as a percentage of "starts"			
Withdrawn	9.33%	9.36%	9.36%
Completed	19.48%	37.52%	37.16%
Expired	4.21%	4.60%	4.59%
Cancelled	25.59%	24.93%	24.94%
Suspended	0.63%	0.95%	0.94%
Total terminated	**59.24%**	**77.36%**	**77.00%**
Total not completed	**39.77%**	**39.84%**	**39.84%**
Non-completion factor	**2.04**	**1.06**	**1.07**

Highest level of schooling

Table 8 shows the variation in contract status by highest level of schooling. The results indicate that trainees and apprentices with year 9 or lower are at a significantly higher risk of not completing their contract of training. It also shows that the likelihood of non-completion decreases as the highest level of schooling increases.

Table 8: Variations in contract status by highest level of schooling

Contract Status	Year 9 or lower	Year 10	Year 11	Year 12	Not Stated	Total
Commenced	29164	129068	70199	172488	20734	421653
Recommenced	1671	13148	7516	15628	1103	39066
Total Started	**30835**	**142216**	**77715**	**188116**	**21837**	**460719**
Terminations as a percentage of "starts"						
Withdrawn	12.15%	11.53%	7.96%	8.09%	7.33%	9.36%
Completed	21.26%	35.66%	34.68%	42.32%	33.85%	37.16%
Expired	5.75%	4.46%	4.77%	4.07%	7.61%	4.59%
Cancelled	26.71%	25.89%	26.98%	22.96%	26.02%	24.94%
Suspended	0.70%	0.97%	1.57%	0.66%	1.37%	0.94%
Total terminated	**66.57%**	**78.51%**	**75.97%**	**78.09%**	**76.18%**	**77.00%**
Total not completed	**45.32%**	**42.85%**	**41.29%**	**35.78%**	**42.33%**	**39.84%**
Non-completion factor	**2.13**	**1.20**	**1.19**	**0.85**	**1.25**	**1.07**

Duration of contract

Table 9 shows the variation in contract status by duration of contract. The results show that the contract duration is not recorded for withdrawals and cancellations, thus making it impossible to see if contract duration is a factor in these types of terminations. It also means that the calculation for the non-completion factor is invalid in this case. However, the table does show a high percentage of suspensions for contracts of training over 4 years.

Table 9: Variations in contract status by duration of contract

Contract Status	Up to 1 year	Over 1 and up to 2 years	Over 2 and up to 3 years	Over 3 and up to 4 years	Over 4 years	Unknown	Total
Commenced	223750	42666	21820	126829	3595	2993	421653
Recommenced	12217	9867	8970	6760	364	888	39066
Total Started	**235967**	**52533**	**30790**	**133589**	**3959**	**3881**	**460719**
Terminations as a percentage of "starts"							
Withdrawn	0.00%	0.00%	0.00%	0.00%	0.00%	1111.65%	9.36%
Completed	31.68%	32.83%	34.20%	47.92%	117.33%	0.67%	37.16%
Expired	5.41%	5.18%	3.34%	3.24%	7.50%	0.08%	4.59%
Cancelled	0.00%	0.00%	0.00%	0.00%	0.00%	2960.53%	24.94%
Suspended	0.10%	2.05%	2.41%	0.70%	34.63%	0.00%	0.94%
Total terminated	**37.19%**	**40.06%**	**39.94%**	**51.86%**	**159.46%**	**4072.92%**	**77.00%**
Total not completed	**5.51%**	**7.23%**	**5.75%**	**3.94%**	**42.13%**	**4072.25%**	**39.84%**

Occupation

Table 10 shows the variation in contract status by occupation. The results show that the occupational groups most at risk of not completing their contracts of training are labourers and related workers and intermediate production and transport workers. The groups least at risk of non-completion are managers and administrators and professionals.

Table 10: Variations in contract status by occupation

Contract Status	Managers and administrators	Professionals	Associate professionals	Tradespersons and related workers	Advanced clerical and service workers	Intermediate clerical, sales and service workers	Intermediate production and transport workers	Elementary clerical, sales and service workers	Labourers and related workers	Total
Commenced	6792	3264	18459	170678	1024	119269	11142	46203	44822	421653
Recommenced	313	28	285	36148	6	1518	58	365	345	39066
Total Started	**7105**	**3292**	**18744**	**206826**	**1030**	**120787**	**11200**	**46568**	**45167**	**460719**
Terminations as a percentage of "starts"										
Withdrawn	6.43%	6.35%	7.61%	10.02%	15.44%	10.45%	6.54%	7.16%	7.71%	9.36%
Completed	47.42%	27.46%	30.43%	45.63%	39.81%	33.67%	24.06%	26.35%	23.98%	37.16%
Expired	6.19%	5.26%	4.94%	2.92%	6.31%	5.57%	8.01%	5.33%	7.55%	4.59%
Cancelled	23.73%	14.79%	19.23%	31.05%	29.22%	19.52%	20.60%	18.45%	22.39%	24.94%
Suspended	0.13%	0.06%	0.14%	1.67%	0.19%	0.35%	0.31%	0.06%	0.83%	0.94%
Total terminated	**83.90%**	**53.92%**	**62.35%**	**91.29%**	**90.97%**	**69.56%**	**59.52%**	**57.35%**	**62.47%**	**77.00%**
Total not completed	**36.48%**	**26.46%**	31.91%	**45.66%**	**51.17%**	**35.89%**	**35.46%**	**31.00%**	**38.49%**	**39.84%**
Non-completion factor	**0.77**	**0.96**	**1.05**	**1.00**	**1.29**	**1.07**	**1.47**	**1.18**	**1.61**	**1.07**

FURTHER WORK

As discussed above, there is a major problem with the data in that the duration of contracts of training which have been withdrawn or cancelled is unknown. This makes it more difficult to therefore separate out traineeships from apprenticeships within the data. The next step is to examine ways of adequately separating the data so that issues pertinent to the different contracts of training can be identified. Following this, a series of cross-tabs will be performed whereby the combination of a number of factors can be examined.

During the last stages of the quantitative analysis, specific research questions will be formulated for the qualitative part of the study to ensure adequate coverage of relevant factors in the interviews.

Measuring performance: using surveys for institutional feedback and planning

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ABSTRACT

Over the past few years, vocational education and training (VET) providers have been increasingly required to report against key performance indicators as negotiated with their funding bodies. In addition, many providers are keen to seek feedback from their various client groups to inform their quality improvement and planning processes.

Typical performance indicators include student, graduate and employer satisfaction ratings. While the results from nationally conducted surveys can greatly assist registered training organisations (RTOs) in determining these indicators for their particular organisation, it is often necessary for VET providers to conduct their own surveys and analyse the collected data.

This paper will discuss sources of readily available data and ways in which VET providers may seek to analyse and supplement the information it provides. It will also examine the issues around institutional surveys, such as: picking your time; getting a reliable response rate; questionnaire fatigue; what to do when you receive conflicting information; using the data to inform decision making; and walking the political tightrope.

INTRODUCTION

The amount of client feedback and reporting against performance indicators incumbent upon VET providers has steadily increased over recent years. With the phenomenon of questionnaire fatigue affecting responses to surveys within the sector, it is now time to develop a strategic approach to conducting institutionally based surveys.

Further, increasing resource restrictions means that the provider based VET researcher has to be not only aware of the limits to their own resources and time, but also those of personnel who may be implementing improvements to products and services as a result of survey findings.

ACCESSING EXISTING DATA AND OBTAINING ADDITIONAL DATA

Part of being strategic about conducting surveys within an RTO is to access the results of surveys and other data that have already been collected. Not only does this save time and money, it also helps to reduce the number of surveys in which client groups are asked to participate.

The most useful existing survey results for a provider based researcher are undoubtedly the annual NCVER Student Outcomes Survey and the biennial NCVER Employer Satisfaction Survey. In addition, institutional data collected for AVETMISS reporting purposes can be very helpful when establishing student profiles or determining the statistical reliability of responses to surveys.

However, the existing data and survey results do not always meet the information needs of RTOs. For instance, while the national surveys may provide sufficient responses at an institute level and even possibly at a division / faculty / school level, it would be rare to find sufficient responses at the department or program level from which to draw statistically reliable conclusions.

This can be illustrated by the 1999 Employer Satisfaction Survey conducted by AC Nielsen Research for NCVER. A total of 1215 businesses were contacted in the ACT. 214 of these employed recent VET graduates, but only 81 employed recent CIT graduates. So while the original sample of ACT businesses was statistically reliable, the sample of businesses employing recent CIT graduates was not.

Further, while NCVER makes efforts to discuss survey needs with local RTOs, it is virtually impossible for a national survey to take into account all of the local idiosyncrasies and variations which may occur.

Because of these types of issues, the provider based researcher may often need to conduct their own surveys. The questions that then arise are: how? when? The key to addressing these questions is to tailor surveys and other data collection activities to meet the provider's particular and current information needs in the most effective and efficient manner possible.

Paper based surveys are often a popular choice. When surveying a large population or sample, they can be relatively resource and time efficient. However, there is increasing resistance to completing lengthy questionnaires, possibly as a result of too many questionnaires and not enough evidence of action as an outcome. There is also a generally increased pace of life. In addition, some clients may have insufficient literacy skills to understand the questions and/or to respond. All of these factors (and others!) can have a significant impact upon obtaining a good response rate.

One way around this is to undertake a census. For example, when the CIT Student Opinion Survey was conducted in 1997 as a mail out survey, there was a response rate of about 12%. Because CIT wanted to obtain a better overall response rate and to obtain statistically reliable results at the department and program level, the 1999 CIT Student Opinion Survey was undertaken as a census. The response rate was 61%. This approach was good in that it elicited responses from a larger number of students, although it did require the co-operation of a lot of other staff in the Institute. It was therefore much more complex in terms of the logistics of the survey. Further, the higher response rate meant much more data entry and analysis.

Telephone surveys are also fairly resource intensive. Still, they can often be used to dig deeper than paper based surveys and are often better at obtaining a good response rate from target groups. They are particularly effective when surveying a relatively small population or a population that is geographically scattered.

For example, in the CIT module non-completions project, a telephone survey was used to ask non-completers why they did not complete the module(s) in which they were enrolled. This method was chosen because it was considered that the likely response rate to a mail out questionnaire would be small and it would have been difficult to bring the students together for focus groups. The staff conducting the telephone interviews found that they could probe into the students' reasons for not completing modules, often supplying information (such as CIT processes and contacts) to the students in the process.

The beauty of focus groups is that they generate discussion between the people being surveyed and generally result in a richer quality of information. They are fairly resource and time intensive, but can be used to good effect when wanting to disseminate information as well as gathering it.

For example, in both the 1998 CIT Employer Satisfaction Survey and the 1999 NCVER Employer Satisfaction Survey, employers indicated that they would like to be more involved in the design of programs. What they perhaps are unaware of is the fact that a lot of programs are now based on nationally developed training packages and curricula and so the opportunity for input at the local level can be limited. Further, they may not be aware of other local industry members who have contributed to the design of the programs in some way. The solution to this problem is probably one of education about the processes involved. A move away from paper based and/or telephone surveys and a move towards focus groups and subsequent information dissemination may assist here.

One simple way of gaining additional feedback from clients is to add a question or two to existing forms. For example, when completing application forms, students could be asked how they found out about the program they are applying for; when completing enrolment forms, students could be asked whether they intended to complete the entire program or only some modules.

Another aspect to consider is the relative merits of extensive surveys and short, focussed surveys. While conducting comprehensive surveys gives you the opportunity to collect a lot of data on a range of topics, there is often the need to gather a few key pieces of information on a particular topic. Further, extensive surveys often highlight the need for further investigation in particular areas. This can often be most easily achieved by a short, focussed survey that may be conducted as a focus group rather than a paper based survey.

For example, one issue arising from the survey of successful completers conducted as part of the CIT module non-completions project was that about one-third of respondents considered that the library resources were not applicable to them. Because of this, it was decided to conduct a short, focussed survey about library resources and facilities. In this way, more in-depth information could be gained about the library that would assist staff to make the library more attractive and accessible to students.

OUTCOMES THAT COUNT

Ultimately, the results of client feedback surveys should be used to support decision making within an RTO, preferably as part of its quality assurance and continuous improvement cycle (plan, do, check, improve).

Consequently, the provider based researcher needs to ensure that recommendations are framed in an appropriate manner, taking into account tensions between what clients are saying and the potential pool of resources available to implement changes. The researcher must therefore form a bridge between managers / staff within the provider and their clients.

For example, in the 1999 CIT Student Opinion Survey, nearly one-quarter of respondents disagreed or strongly disagreed that there was sufficient internet access in the library. Consequently, one recommendation of the report on the survey was that the amount of internet access be reviewed as to its sufficiency and sustainability. (The real issue here is that students want to have unlimited free internet access, while the Institute has a limited budget.)

Probably the most important thing a provider based researcher can do is to advocate the development of action plans around the findings of surveys and their recommendations. In this way, feedback from clients can result in real actions and improvements and help overcome the feeling of apathy clients face when asked to complete a questionnaire or similar.

Further, there has to be sufficient time between surveys in which to implement improvements. Otherwise, survey results will continually indicate the same issues and clients will become disillusioned with the whole process of client feedback. For example, the 1999 CIT Student Opinion Survey yielded a lot of information about the perceptions and experiences of students at CIT. Because of the magnitude of the survey, action plans for implementing changes have only recently been developed and changes will be implemented this year. Therefore, there is not much value in conducting such a complex survey again this year. Instead, CIT will conduct short, focussed surveys on particular issues.

Also of crucial importance is fitting into the teaching cycle of the institute. There is little point attempting to seek feedback from clients at certain times of the year. For example, students just commencing their programs may not have had sufficient experience of the program or the institute to be able to give fully informed comment. Students in the middle of examinations are not that likely to be interested in giving carefully considered responses to a lengthy questionnaire.

In order to facilitate the most effective uptake of information and knowledge generated from the survey results, the planning cycle of the RTO also needs to be taken into account when conducting surveys. For instance, there is not much point in providing survey results in December if they were needed for planning purposes in September.

CIT now develops an annual survey plan that identifies when and how surveys will be conducted. The timeframes are designed so that the results feed into the planning cycle and each faculty / division is required to establish their own action plan in response to the findings. In this way, client feedback surveys are becoming an integral part of our quality assurance and continuous improvement system.

GETTING THE MEASURES RIGHT

To a certain extent, reporting against performance indicators at local, state and national levels is constrained by the performance indicators imposed by funding bodies and training authorities. However, it is useful to question why particular measures are used and to discuss ways in which to obtain more appropriate indicators of an RTO's performance.

Perhaps the most obvious example is that of measuring course completions as opposed to module completions. The 1999 CIT Student Opinion Survey showed that 8% of all respondents intended completing only some modules, rather than a qualification. In some discipline areas this was even higher, eg, 36% of respondents undertaking access education programs and 20% of respondents undertaking software development programs indicated they intended only completing some modules. Consequently, program completion rate is not necessarily a measure of students achieving the outcomes for which they enrolled.

The above example begs the question of what constitutes success anyway? For example, when students who did not complete modules were surveyed as to the reason why, about 30% indicated employment related reasons. In particular, students in areas such as kitchen duties and English language left the program as soon as they had obtained employment. The students had achieved the outcomes for which they enrolled (ie, employment), but because they did not complete an entire program or even some modules, they counted as non-completions.

When reporting against key performance indicators, there is often the temptation to report using one measure in isolation. For instance, to obtain an overall graduate satisfaction rating, the most obvious way is to use the responses to question 62R on the annual NCVER Student Outcomes Survey and calculate the percentage of graduates satisfied with their program of study. However, there are also a number of other indicators of a program's success (or otherwise) embedded in the data. These include: average weekly earnings; employment rates; relevance of program to employment; achievement of aims when enrolling; perception of tangible benefits arising from completion of the program; credit received for program when undertaking further study. These other measures may be a better indicator of a program's success and a client's satisfaction with the program than a general question with a 1 to 10 scale. The latter type of response may be subject to variations in perception from day to day.

For example, in the results foe the 1999 NCVER Student Outcomes Survey, CIT had a lower satisfaction rating from its graduates than the national average. However, when looking at other indicators, such as those listed above, CIT performed demonstrably better than the national average. This disparity in results could be explained when the demographics of CIT's student population were examined. For instance, CIT's students had a higher level of education prior to commencing their study, they received more recognition for their prior study and were more likely to be employed while studying than were students in the rest of Australia.

TOWARDS THE FUTURE

More providers are conducting surveys to inform policy and practice within their organisation and are now starting to accumulate longitudinal data from such surveys.

The next logical step is to use the accumulated data and information generated by the surveys to build appropriate models and frameworks upon which to base planning. The building of models and frameworks can also be broadened from the local institute into the wider VET sector with appropriate sharing and collating of information from RTOs.

In this way, broader patterns and trends in the VET sector can be examined in a more coherent fashion and knowledge about the sector can be generated in a strategic way. When this happens we will see a move from information management to knowledge management both within institutions and within the sector.

CONCLUSION

Provider based researchers undertaking surveys for institutional feedback and planning need to make effective use of existing data and be strategic in designing and administering additional information gathering tools. It is crucial that survey results be fed into the planning processes within RTOs and that current performance indicators be closely examined. Further, there is a strong need within the sector to more openly share the knowledge generated by institution based surveys and to move towards a model of knowledge management.

Workbased learning as critical social pedagogy

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> All social movements involve conflicts which are reflected intellectually in controversies. It would not be a sign of health if such an important social interest as education were not also an arena of struggles, practical and theoretical. (Dewey 1938, v).

ABSTRACT

This paper reports research conducted by the Workbased Learning Unit at the National Centre for Critical Social Pedagogy (N. C. Crisp). Our work on workbased learning (WBL) reframes the dualism of higher education and vocational education and training. In implementing WBL we are aware of the epistemological and historical backgrounds of workbased learning and the tensions between competing interests embedded in it. Some of these backgrounds will be explored briefly to position our view on WBL within broader educational debates. The paper argues that two main forces, economic responsiveness and critical social pedagogy form an integral, historic part of WBL. The specific expression of these debates in our application will be described as main strategies and principles developed in the Graduate Diploma of Social Sciences (Community Services).

INTRODUCTION

From schools to universities, the inclusion of work in institutionalised learning processes is seen as a major advance towards a more economically viable output (ie. employable school leavers and graduates). Consequently, 'workbased learning' and its more limited sibling 'workplace learning 'are emerging as the latest innovations throughout the education system. In higher education, WBL can be seen as a strategy to break down barriers between vocational and academic education and as an opportunity to improve access to higher education. Hand in hand with 'seamless' education and recognition of prior learning, WBL is making inroads in traditional education institutions. The debate about vocational outcomes of schools and universities is longer philosophical and technical. Apart from implementation issues, schools and universities are struggling to embrace WBL, which is often seen as purely instrumental and as selling the role of education short. Schoolteachers have resisted the production of 'factory fodder' since the beginning of mass education and universities pride themselves on the unfettered pursuit of knowledge. In our experience, these two positions form an integral part of a WBL dialectic, they need not be mutually exclusive and a quasi-stationary balance between economic responsiveness and critical social pedagogy can be attempted.

HISTORICAL AND EPISTEMOLOGICAL BACKGROUNDS OF WBL- A BRIEF OVERVIEW

Although spoken of as educational innovation, WBL has a long history of experimentation and the educational concepts and practices described as workplace learning and WBL have a rich epistemological tradition in debates about

- the relationship between education and the economy
- the relationship of theory and practice in education processes
- the dualism of education and training and associated social and institutional divisions.

In the following we will briefly address the three points identified above before giving examples from our practice.

THE RELATIONSHIP BETWEEN EDUCATION AND THE ECONOMY

The relationships between education and the economy have been publicly debated from different viewpoints since the advent of mass education (Dewey 1916, Illich 1976, Gee 1994) By and large, since the early 20th century, education has been seen as a vehicle to deliver economic and socio-political outcomes. Dewey (1916) first identified contradictions between the principles of emerging democratic societies and classical, elitist education on one side, and the increasing demand for technically educated labour on the other. He lead the development of a new educational philosophy that would inform much of the on-going debates about the appropriate provision of education to the masses. His educational philosophy linked the requirements of a political democracy to industrial reorganisation by using the 'experimental method' - a teaching approach that develops knowledge as a pragmatic instrument to understand and manipulate one's environment (Rutcoff and Scott 1986, 13). Embracing a curriculum that delivered technical skills and knowledge, he also argued constantly and consistently for the development of 'critical and inquisitive minds' as a major role of education in the (then) new century, if that education was not only to deliver economic outcomes but to deliver the conscious and active democratic citizen as well (Dewey 1916). Furthermore, he established the argument that uncritical and compliant workers are, in fact, counterproductive to the new scientifically advanced workplace. Whilst not defined as 'workbased' the 'experimental method' shares some common features with WBL and can be seen as one of its forerunners. It introduces 'real life' experiences into the learning process and encourages students to investigate and research physical and technical applications wherever they can be found in order to develop a technical and critical understanding of their environment. The 'experimental method' actively and deliberately challenges the classical division of theory and practice in education.

These political, economic and philosophical dimensions of WBL were echoed somewhat later, on the other side of the world and across the political divide in attempts to educate the fully developed socialist personality (Krupskaya, 1961), individually, socially and politically active and responsible. The Soviet education system was charged with delivering a technically skilled, politically conscious and reliable workforce within a short period of time. The approach developed by Makarenko (1951) gave new meaning to the integration of work, education and living and informed Soviet education policy for some time, eventually contributing to the creation of a polytechnic education system. Makarenko's collectives of young people organised themselves around work sites and their requirements and based social and political decisions on a value system founded on productivity and responsibility for the new nation. Education in this context was predominantly workbased, supported by a strong commitment to self-management and accountability to the collective. Its outcomes as reported by Makarenko were remarkable in their complexity of outcomes, technical, social and political.

THE RELATIONSHIP OF THEORY AND PRACTICE IN EDUCATION PROCESSES

The quest for an integration of theory and practice in education strongly reflected the increasing demands of industrialised societies to qualify their members to be able to apply science and technology in the production processes. As industrialised work evolved into more complex activities, the generally educated high school and university graduate was no longer seen to be capable of meeting the demands of the labour market, especially and the higher end of the qualification spectrum.

The linking of theory and practice in education has re - (in)formed the educational repertoire since the mid 19th century (Frey 1990). Described in the past as 'project method' (Kilpatrick 1918, von Bothier 1980, Waks 1997), 'experimental method' (Dewey 1938), 'Aktionsmethode' (Soukup 1972) and polytechnic education (Beck 1990), 'WBL' or the use of 'productive activity' (Wagner and Childs 1998) as basis for educational practices accompanies educational innovations that aim at 'useful' and marketable outcomes, ie. opportunities for students to better participate in socially productive, income generating activities.

A historical exploration of the theory and practice divide reveals one fundamental controversy between different philosophical stances on the origins and development of knowledge. Although a wider range of arguments exist, two main positions are historically juxtaposed in the education debate, the idealist view that knowledge exists independently of concrete experience and purpose and the materialist view of an inseparable dialectic between material basis and consciousness. Both views continue to influence current debates of the relative value of different education processes in academic and vocational institutions of learning.

Idealists in classical Greek philosophy have argued a notion of knowledge as uncontaminated by the practical purposes of human existence.

> Much as these thinkers [Plato and Aristotle] differed in many respects, they agreed in identifying experience with purely practical concerns: hence with material interests as to its purpose and with the body as its organ. Knowledge, on the other hand, existed for its own sake free from practical reference, and found its source and an organ in a purely immaterial mind: it had to do with spiritual and ideal interests. (Dewey 1916, 262-263)

Learning in this context is contemplative and directed towards the cosmos, as a model of perfect society and the learner needs to be free of real life interference. The 'loftiness' of this pursuit of knowledge is still apparent in academic practice and serves to identify 'theory' as superior to 'practice'.

On the other hand, the materialist view as argued by Marx saw " (t)he production of ideas, of conceptions, of consciousness, ...[as] directly interwoven with the material activity and the material intercourse of men (*sic*), the language of real life" (German Ideology, cited in Fromm 1961, 21)

Learning in this context is active and directed towards the barriers limiting human endeavours and learners need to be embedded in the real world.

This view is echoed by many researchers of learning, who see the development of symbolic actions as based in concrete operations (Vygotskii 1978). Learning, if it is to lead to action, needs to develop as interaction of theory and practice that recognises its social embeddedness. (Leontjew 1982, Holzkamp 1985). The resulting 'praxis' integrates 'logos' and 'doxa' and strives to demystify the relationships between man (*sic*) and the world (Freire 1973). It is inherently practical, theoretical and critical.

THE EDUCATION AND TRAINING DUALISM : SOCIAL AND INSTITUTIONAL DIVISIONS

Hand in hand with these differing positions on the formation of knowledge is a clear dualism of education to work and general education mirroring the separation of theory and practice. Institutionally, the separation of universities from VET systems and streaming in secondary schools represents the education and training dualism.

> This dualism is a reflection of complex social arrangements . . . the source of this dualism [lies] in the division of society into a class labouring with their muscles for material sustenance and a class which, relieved from economic pressure devotes itself to the arts of social expression and social direction.(Dewey 1916, 336)

Although current changes to the education system promote the development of vocational skills across the institutional spectrum, in many ways the production of independent, critical knowledge is still seen as the domain of universities, whereas WBL, even in university courses, is seen to cater to industry interests and as under pressure to conform to utilitarian demands (Garrick and Kirkpatrick 1998). The division of academic and vocational curricula continues to provide the institutional base for the reproduction of social divisions, of privilege and disadvantage be they class, gender or race based. It directly reinforces the different value, type and accessibility of education and training and their social and economic recompense. To soften the impact of these divisions educationally, within a university context, WBL could form an integral part of a whole range of courses that are industry generic rather than employer specific. Resisting a hierarchy of knowledge they can be accessible via RPL processes that recognise vocational and professional practice as equivalent to undergraduate study.

These backgrounds and contexts position WBL not only as educational technology and method but as a site of struggle between contradictory economic, social and political interests and differing views on the role of learning and education in contemporary society. It is our argument that these tensions and contradictions impact on the implementation of WBL regardless of place and time. Invariably, they require complex management strategies if WBL is to balance the benefits, losses, inequities and disadvantages inherent in attempts to cross traditional boundaries between academic and vocational education.

WORKBASED LEARNING AS CRITICAL SOCIAL PEDAGOGY: EXAMPLES FROM PRACTICE

In our practice we build on previous experimentations with WBL and struggle with the same issues: the relationship between education and the economy, the relationship between theory and practice and the education and training dualism. In the following discussion we focus on the main strategies and principles developed to guide that experimentation with examples drawn from the workbased Graduate Diploma in Social Sciences (Community Services). The course is industry generic and caters for experienced community sector workers from a cross-section of organisations (community based, government departments, charities) and working with diverse social services clients (eg youth, women, NESB communities, housing tenants and prisoners).

Principles

WBL has led us to question the assumptions about privilege, elitism and the production of knowledge within a tightly bounded university system. As we have asked questions about what appropriate learning processes may look like when the education and training dualism is confronted, we inevitably have also confronted the university's equity practice, assessment processes, curriculum decisions and questions of relevance and utility of university learning. Our own learning process has led to the formation of a set of practice guiding principles that try and make sense of challenges generated by WBL in a university environment.

First and foremost, our overarching principle is to operate 'ad hominem', that is to put people before principles. In concrete terms, our equity processes are detailed, well developed and provide for the greatest possible accessibility. Often, universities pride themselves on their access programs allowing non-traditional students to enter degree programs, however in very few cases does this translate into the restructure of courses to cater for non-traditional students In our program accessibility is supported by appropriate, inclusive learning processes that do not discriminate on the basis of pre-existing educational qualifications. Instead we start from a position of shared expertise in our work and as 'workers' within exploitative work environments. By recognising work as curriculum (Childs, 1997) students can actively engage in workplace enquiry and the production of knowledge is both grounded, shared and developmental. The comparison of different work practices between creates instant starting points for critical analysis and reflection as well as for the development of improved practice.

Following on from this basic position, we define learning as cross-disciplinary and multi-disciplinary. Work does not fit neatly within disciplinary boundaries, however disciplinary knowledge can enrich learning and diversify action possibilities. Thus learning is an active investigation of and enquiry into existing realities. Such an approach establishes a community of learners who are also ethical researchers and workers. On this foundation, the course allows for the development of skills and knowledge that is at once technical, interpretative and critical.

Main Strategies

The Graduate Diploma is conducted utilising a diverse number of strategies. Given limitations of space, in the following discussion we will limit our discussion to single examples of the approach we have taken to integration, projects, process, assessment, role diversification, assessment, and partnerships. Each of these strategies is developmental and reflects our on-going interest to continue the tradition of WBL as framed by

- the relationship between education and the economy
- the relationship of theory and practice in education processes
- the dualism of education and training and associated social and institutional divisions.

Integration

Integration takes a number of different forms: integration of learning outcomes, integration of academic and workbased contexts, and assessment that attempts to reflect the complexity of the subsequent learning. In this section, we restrict our discussion to an example of integrated learning outcomes.

It is common for university programs to consist of separate and sometimes discrete sets of subjects that are assessed one at a time by different academics, often sequentially. In the Graduate Diploma we collapsed the boundaries between subjects, and developed an integrated set of learning outcomes. In this way, we have been able to present a course that reflects the complexity of students' working environments. As part of the learning process, students are encouraged to analyse their own learning in relationship to the learning outcomes, over time. Thus they act as a set of descriptors, as well as an analytical tool (See Table 1, below).

Table 1: Integrated Learning Outcomes of the Graduate Diploma in Social Sciences (Community Studies)

What learning outcomes am I working towards by doing this course?	Did I consider this?
Have a complex understanding of the relationship between social policy, policy development and policy impact in the community services sector	
Have a complex understanding of the relationship between societal developments, changing value basses and social developments	
Have a complex understanding of the purpose, intent and impact of different levels of social policy on organisations, clients and workers in community services	
Critical analyse concepts and frameworks that impact on the provision of community services	
Develop analytical responses to the changing role of the state and individual in the provision of community services	
Apply critical and analytical competence to specific work place contexts	
Integrate multiple perspectives of community services	
Better respond to the complexity and ambiguity of client's needs and environments	
Develop complex, multi-disciplinary interventions	
Develop a complex analysis of the interface of individuals and systems	
Develop strategies for the critical reflection of everyday practices	
Consider frameworks for analysis and decision-making in community services.	
Develop the ability to distinguish between different kinds of research and their applications within the context of community services.	
Develop the ability to critically analyse the use of 'research' as a political and social stratagem	
Develop an understanding of the role played by research within the development of the community services sector.	
Develop understanding of the role of the researcher within different types of research and the impact this has in a wide range of community services settings.	
Develop submission (funding) writing skills	

Projects

The workbased project is a major component of the course. It provides the foundation for all other activities; study, research, assessment as well as skills and knowledge development. Students are asked to consider a set of guidelines when deciding on their project. Consideration is given to the time frame of the course and the potential of the total project or significant components of the project to be completed within that timeframe. In case of group projects, individually assessable task need to be identified. Given that much of the project work will occur in students' work time, projects need to be negotiated with organisational managers and need to benefits the organisation. As part of a postgraduate degree, the project needs to be sufficiently complex to allow the development of investigation and research skills. Finally, the project needs to lead to a 'product' that adds-value to the project and meets both the assessment criteria of the course and organisational expectations.

Process

The course retains a high level of face to face interaction between students, coordinator and academic staff, and promotes the value of social interaction and collective endeavours in the learning process. The number of contact hours were developed by considering the time spent face-to-face in traditional university subjects, and calculated to reflect the integration of eight subjects.

The course is delivered as a combination of:

- workbased projects conducted by candidates in their organisation
- block seminars and workshops conducted by academic supervisors
- workbased learning coordinator and participants
- peer group meetings or study circles conducted by the workbased learning coordinator with small groups of students.

A discussion group is available on the net (http://www.nepean.uws.edu.au/social/gdss/index.html)

Assessment

Assessment in a university course is commonly conducted subject-by-subject. In this degree however, we developed a complex set of criteria to guide the assessment of workbased projects and journals. The breadth of assessment was considered through study related, work related, and project related descriptors. The depth of learning was considered through skills, understanding and analysis descriptors (See Table 2, below).

Table 2: Assessment Matrix for Assessment in Graduate Diploma of Social Sciences (Community Services).

	Skill	Understanding	Analysis
Study Related	• Collects information • Searches for existing data • Searches for literature • References competently • Describes raw data • Summarises reference materials • Provides a well-organised lay-out	• Shows understanding of reference materials • Links reference materials to the development of the project • Provides a well-thought-out 'story' of the learning process	• Analyses literature in the context of the project • Provides an analysis of the learning process
Project Related	• Poses questions • Documents peer group meetings • Documents project actions (*Field Notes*)	• Consistently writes in *Learning Journal* • Understands the way the project is developing • Understands the learning that occurs in peer meetings	• Develops a convincing argument about the way the project is being done, and why • Links the *Learning Journal* to an exploration of reference material
Work Related	• Positions project in the work context • Identifies direct relationship between work and project	• Develops understanding about work	• Positions project in broad political, social and economic contexts • Positions project in research • Reflects and comments on relevance of multiple sources of data

Partnerships

In NSW, the course is offered as a partnership program between the university and a community sector peak body, the Association of Children's Welfare Agencies (ACWA). Both partners contribute supervisory and teaching staff, developmental input and administrative support, a profit sharing agreement is in place. This arrangement takes seriously a need to integrate theory and practice not only by way of curriculum decisions but also at organisationally and structurally. In this arrangement, the university is not a 'provider' to industry but a partner in developing appropriate qualification processes. On the other hand, the industry partner engages in the experimental and developmental processes underpinning the course.

Role diversification

Childs (1997) argues that 'workbased learning means that not only is knowledge pooled between partners' but also that a range of different roles become available to all participants (p.37) when learning is not bounded by the teacher/student dichotomy and the notion that the academic is the only expert. In the Graduate Diploma, all participants- including academics- have diversified their roles. These roles included: researcher, networker, sounding board, client, vocational trainer, teacher, consultant, broker, resource person, trainee, administrative assistant, facilitator, story teller, process and data analysts, research assistant, expert, learner, practitioner, ethicist, and so on.

CONCLUSION

Our experimentation with WBL in a university context has indicated the need to develop principles and strategies that confront a bounded, segregated education system that compartmentalises and privileges types of knowledge. In our process of WBL implementation we have drawn on and fit into its historical and epistemological background, which acknowledges education as a site of struggle, practical and theoretical for all participants in the process.

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Flexibility through technology — lessons from the field

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ABSTRACT

The national ***Learn**Scope* project provided an opportunity to observe vocational education and training (VET) practitioners as they attempted to implement technology for educational purposes. The success of the project teams varied for a variety of reasons. Some integrated sophisticated technologies into their range of educational media while others continue to see technology as a novelty or an 'add on' to their traditional medium – the classroom.

These observations have raised interesting issues for educators to consider. None the least of which are whether or not technology is interpreted as value free and whether teachers understand technology as a pedagogical tool. This paper does not propose to answer questions but rather to raise them. It will describe some of the more interesting lessons gained from informal observation of some thirty work-based learning teams across Australia.

INTRODUCTION

This paper is structured in two main parts. The first briefly discusses four interesting lessons learnt from LearnScope. They are by no means the only things learnt but collectively provide some insight into the issue of how VET practitioners go about integrating technology into their teaching and learning practices.

In the second part of this paper I will expand on two particular areas of learning for the LearnScope team. I have included these as they refer to two aspects of work-based learning that the LearnScope management team are often asked for advice on – facilitation and learning models.

BACKGROUND

LearnScope is a national professional development initiative funded by the Australian National Training Authority (ANTA). Its purpose is to provide opportunities for teachers and trainers in the vocational education and training (VET) sector to become more skilled in the use of technology to support student learning. More specifically, the LearnScope project funds teams across Australia who engage in work-based learning to gain skills and understandings about how to integrate technology into their teaching and learning practices.

There have been three rounds of LearnScope funding distributed (one in 1998 and two in 1999). Nearly 70 work-based learning teams have been involved totalling over 1000 individual participants. They have developed skills as simple as effective use of e-mail as a communication and document distribution tool, and as complex as web authoring and educational WWW site design. Perhaps more important than this, many of the participants have explored the meaning of technology as an educational tool. They have begun to re-conceptualise their teaching and learning practices to include the gamut of communication possibilities that technology offers.

You will notice that in the last paragraph I have deliberately used the word 'begun'. Based on my own observations of LearnScope teams, I believe that the majority of teachers and trainers are yet to have sufficient exposure to well planned and implemented educational technology to be able to reshape their practices with technology as a core tool rather than as a token add-on.

DISCLAIMER

I must point out at this juncture that the following observations have not been the result of formal research. They are simply those of a project officer who has been in the unique position of being able to observe a wide variety of VET practitioners in both public and private organisations, and who have been specifically engaged in attempts to integrate technology into their educational practices. I also feel obliged to point out that this paper does not necessarily reflect the views of the LearnScope Project Management Team, ANTA or the NSW Dept of Education and Training.

LESSON 1 – CAPABILITIES AUDITS

One of the first things learned through observations of LearnScope teams was that starting out with some sort of capabilities audit is essential. Although teachers and trainers recognise that they need new skills in order to effectively incorporate technology into their delivery, they often don't realise the full range of skills and understandings required. Further, they often over or under estimate the gap between their current capabilities and those required.

Teaching and learning, where technology rather than the teacher is the primary media, is quite different than anything we have done in classrooms in the past. The moderate scenario is where technology is incorporated into the standard classroom to augment and enhance the teaching and learning process. In the extreme case the technology medium completely replaces the four-walled environment - the physical location of student and teacher becomes irrelevant and their interaction entirely virtual.

At any point on the continuum between these extremes the common feature is the shift of the teacher from being the primary medium towards being a facilitator through a new medium – computer, WWW or other. This shift not only requires both student and teacher to acquire technical skills in the use of the new technology, but also requires the development of a new relationship between teachers and students. A relationship that sees the teacher still taking a pivotal role but quite dissimilar to that of the past.

Hence, when it comes to taking on new technologies, teachers and trainers benefit from using a capabilities audit in two ways. In the first instance the audit process introduces them to the range of capabilities, not just technical skills, that they need in order to effectively support their students' learning. Secondly, the audit process helps accurately identify the gap between current capability and required capability. Knowing the gap is important as it represents the learning that needs to take place before technology can be effectively used.

Through LearnScope we learnt that in most instances teachers and trainers focused their attention on the technical skills required to use technology and had more difficulty understanding the capabilities they would need to develop. That is, they generally had difficulty recognising the effect the use of technology would have on the teaching and learning process and how they would have to change their practices and their relationship with students. A contributing factor to this is the lack of a comprehensive, capabilities auditing tool that considers both technical and pedagogical skills.

LESSON 2 – PLANNING

The second lesson from LearnScope relates to planning. Interestingly, although teachers and trainers advocate good planning of their students' learning, they do not always plan their own learning as thoroughly. LearnScope teams demonstrated that where pre-planning was rigorous, the achievement of outcomes was almost guaranteed; skills were developed and technology successfully piloted. On the other hand, where planning was not given a high priority, teams more easily lost focus and became distracted, progress proved more difficult and project outcomes often had to be renegotiated.

Why is this of interest? Because it means that we cannot assume that teachers will automatically know *how* to learn about the use of technology as an educational medium and/or tool.

In fact, we may be oversimplifying the process required. To date we approached the inclusion of technology as a simple matter of 'develop the skills and understandings and then get on with it'. However, after observing the LearnScope teams I suggest that it is far more complex than that. True, teachers and trainers need to develop technical skills and other capabilities. Also true that at a superficial level this can be done through the project based approach currently applied. However, for staff to sufficiently change their teaching and learning practices such that technology becomes embedded rather than added on requires re-conceptualising the role of the teacher and the role of the technology medium. This cannot be done in a short space of time nor can it be done by simply learning skills.

This is not to say that we should not continue to use the LearnScope project-style, work-based learning approach. Rather, I suggest that we should recognise the limitations of work-based learning by virtue of the approach itself and because peoples' understanding of it also limits the outcomes possible. I will have more to say on this in Lesson 4. For the moment lets return to the question of planning work-based learning.

What I am about to say will come as no surprise. We found that the essential elements to planning a LearnScope style project were the establishment of clearly articulated learning outcomes, reasonable time lines that take into account the periodical interruptions to the academic calendar (e.g. assessment, marking and vacation periods), agreed interim goals and a monitoring strategy, regular interaction with the learning facilitator, and a risk identification and management plan. Where these elements were included in the overall plan the LearnScope teams were considerably more likely to achieve what they set out to do.

LESSON 3 – SKILLS FIRST

Lesson 3 goes some way towards helping resolve the dilemma uncovered by Lesson 2. The third lesson learnt from LearnScope was that in most cases, teachers and trainers need to move through a stage of skills development before they are able to consider the pedagogical implications of technology.

The facilitators of some LearnScope teams attempted to grapple with questions of pedagogy very early in their projects and found it particularly difficult. Generally teachers and trainers were preoccupied with their lack of familiarity with technology and were concerned initially with developing at least rudimentary skills in its use. As a result, team members were not able to consider issues of 'application' until they had undergone sufficient skill development for them to feel comfortable with the technology in question. Only after this were they able to recognise that the inclusion of technology is not just an issue of skills, it is an issue of changed roles and relationships.

In short, the lesson learnt was that VET practitioners need to learn enough about the technical aspects of technology to realise what they don't need to know. Then they can refocus on the more difficult issues associated with the use of technology as an educational medium.

LESSON 4 – TIME AND PRESSURE

This last lesson from LearnScope also contributes to the resolution of the dilemma described in Lesson 2. Lesson 4 has two parts, namely (a) that there will be considerable time between the piloting of technology as an educational medium and its integration into practice, and (b) this second stage (i.e. integration) may not occur unless there is continued pressure on staff to do so.

One of the aims of LearnScope is that teachers and trainers will reach the point of considering the use of technology as a normal part of their practice rather than as an add-on. The reality though is that LearnScope can only directly support the process of developing some skills and understandings and then the application of these in a pilot or trial. The process of re-conceptualising their teaching and learning practices with technology as a fundamental component takes time and occurs to some extent during the pilot stage, but to a greater extent, afterwards.

Therefore, the critical stage in terms of technology becoming integrated, comes *after* such interventions as LearnScope. When the funded project is over the training organisation needs to accept continuing responsibility for maintaining subtle or overt pressure on the participants, and needs to continue to provide appropriate levels of resources (specifically time). Without both pressure and resources, LearnScope participants are likely to see the end of the funded project as the end of their required effort. The potential result is at best, a superficial use of technology and at worst, a lack of further progress and a return to original, technology free practices.

Part 2

LEARNING MODELS

An often asked question of the LearnScope management team is about how to *do* work-based learning (WBL). Even if we agreed on a definition or description of WBL the reality is that everybody does it in a different way. Not only that, they will vary the way they learn according to the type of content, the context of the learning and the degree of motivation they feel for the process or the outcome. The LearnScope teams demonstrated this over and over again. Not only did teams go about their collective learning in different ways, individuals within each team used different strategies.

In the next four subsections I will describe, in the form of models, four of the ways we observed LearnScope teams learning.

Zero Option model

This model particularly applied where the learning outcomes for the LearnScope team members focused on developing skills in the use of technology (vs application of technology). In this model the learning facilitator designs activities and team communication strategies that rely on using technology. No alternatives are provided so the individual team members are forced to engage in the technology simply to find out what is going on.

Of course, the facilitator and project manager build in support so that the team members with little skill are provided all the help they need to learn how to use the technology. The point is though, that there is no option but to use it if the team member wants to be a part of the project.

The situations where this model is particularly useful are where there are team members who are somewhat reluctant to use technology themselves although they are designing technology based learning activities for their students. It is a model that recognises that a base level of competence by the teacher is essential if they are to fully understand the implications of using technology as an educational tool

Tippy Toe model

Imagine the professional development project to be like a swimming pool. Some teams chose to tippy toe in from the shallow end. In other words, they chose to begin with small tasks and build up to more difficult learning activities. Typically, these teams begin by learning about the 'technical' aspects of technology – from how to use email, organise files, create links in word documents through to more complex skills like using HTML and hypertext, working with graphics and creating web pages.

In a short period of time many of the members of tippy toe teams realise that they personally don't need to have the technical skills. They come to a point where they know enough to know that they don't need to know more in order to be able to design technology based learning. It's at this point that the facilitator changes the focus of the learning activities from understanding the technology to interpreting the technology as an educational tool. In this second phase the team reviews, evaluates and critiques how they and others have used technology. They discuss design and pedagogy, and begin to reconceptualise their classroom practices to take into account the virtual medium. The learning for tippy toe teams is evolutionary – it is prestructured and reasonably non-threatening.

This model works particularly well with groups who have a common need for learning but may not have an immediate application in mind. Often the team includes inexperienced persons who benefit greatly from the gradual approach. More experienced team members often take on extra tasks to satisfy their learning needs while mentoring their less experienced colleagues.

Deep End model

Unlike the previous model, 'deep end' teams jump into a complex task right from the word go. These teams typically have been charged with collective responsibility for having a particular course or subject on-line within a given time frame. Their project starts with activities directly associated with this task.

Deep end teams learn as the demands of the project require. Obstacles along the way give rise to learning activities. Hence the learning is revolutionary rather than evolutionary. It is high risk for the team members as there is much less pre-structuring. Not all team members need to acquire the same skills set nor do they all need the same level of proficiency hence each may undertake a totally different learning path.

The deep end model is very often the preferred choice of task oriented teams. It's a model that works best with pre-existing teams who have worked together before, are comfortable with the dynamics between team members and who have some previous experience with technology. There needs to be a clear sense of common purpose and acceptance of the flexible nature of the learning process.

Parallel Approach model

In this model the team members undertake a structured training program and parallel work-based activities designed to encourage application of the theory in context and also to provide opportunities for assessment of the learning.

Unlike the 'deep end' approach, in this model the team members are unlikely to be a pre-existing team with a single, collective objective. In fact, the parallel approach works particularly well when the team members are drawn from different areas of the organisation. Participants probably don't see themselves as a team at all but rather, a collection of individuals each with a similar learning need. Although the structured learning may be done together, typically the work-based tasks are individual and relate to the context of each separate team member.

FACILITATING WORK-BASED LEARNING

No matter what model of work-based learning adopted, the role of the learning facilitator has been identified as crucial to the success of LearnScope projects not only by the LearnScope Management Team and ANTA's independent evaluator, but also by members of LearnScope teams themselves. Work-based learning is not the same as the process that takes place in a structured classroom environment. Many teachers are not familiar, experienced or comfortable with learning using the work-based methodology. Hence, having a learning facilitator working with the team has proven to be one of the essential ingredients for success.

What does the learning facilitator do?

One of the first tasks of the facilitator is to help the team members articulate what it is that they want or need to learn. This is not always easy. The facilitator needs to have a good understanding of the overall aim of the project to help ensure that the outcomes written in each individual's learning plan are related and contribute to the overall outcome for the team.

Associated with this task is helping team members plan appropriate learning activities. The most challenging aspect of this for the facilitator is to help identify existing work tasks that may contribute to their learning or ways to adapt work tasks to become learning activities. This is challenging because it means the facilitator must become sufficiently familiar with the context of each individual's work to be able to prompt them to rethink their daily tasks as potential learning activities and to recognise opportunities for collaboration.

The third significant role of the facilitator during the planning process is to help the team members develop a realistic time frame for their learning. Very often teachers underestimate the time required for work-based. An experienced facilitator will know that it takes a very short time for other work pressures to force the work-based learning project down the priority list thus encroaching on the time set aside for learning.

Clearly then, part of the facilitator's role during the project is to monitor the team members and encourage them to keep their work-based learning project as a high priority. The facilitator needs to strike a balance between motivating and nagging, and also needs to recognise that some individuals respond well to close and obvious monitoring whereas others prefer a looser approach. One size will not fit all.

Monitoring is not the only ongoing role. The facilitator needs to keep in touch with each individual in order to recognise if and when it might be appropriate to renegotiate the learning outcomes or to modify the planned activities. In some cases the original learning plan is found to be too ambitious or perhaps not ambitious enough. It might be that an unexpected opportunity has arisen which would greatly benefit the project if it were incorporated. There are many reasons to modify a learning plan along the way and the facilitator needs to be aware and ready to help do this.

Facilitating communication between team members is another aspect of the facilitator's role. Not all members of work-based learning teams are necessarily working towards the same specific outcomes hence the facilitator needs to make a judgement about the degree and form of inter-team communication necessary to maximise learning, and develop strategies for this to occur. Some teams are made up of independent individuals who need very little face to face contact. Others thrive on regular meetings. For some teams virtual communication is ideal and for others the personal approach is more beneficial.

Work-based learning often produces unexpected outcomes. This is one of the reasons why it is so valued as a professional development methodology. A good learning facilitator helps team members recognise and take advantage of the incidental and unexpected learning that they gain along the way. This requires keeping your eyes and ears open, being aware of changes in the way individuals talk about their work, and asking questions often.

Finally, a learning facilitator helps to provide a sense of closure. Projects that are not formally ended can leave participants with a sense of something unfinished which in turn can make it difficult to recognise and value their achievements. Having a final meeting at which the project is formally announced as complete is important (even though the learning may continue afterwards) and generally coincides with the end of the funded activities. This meeting is where the learning facilitator encourages each team member to recognise the planned and incidental learning that has taken place, to celebrate the hard work and energy they have contributed and also the fact that *they* were the ones who achieved the outcomes. Work-based learning is not easy and each team member should feel proud of their achievements even though each has accomplished different things.

Specific challenges of facilitating work-based learning

There are many challenges common to the facilitation of any group activity but there are others that are more obvious in work-based learning. One of these is unpredictability. Unlike structured classroom based learning, work-based learning gets interrupted, reprioritised, forgotten, redirected, and rarely proceeds exactly as planned. The facilitator needs to reassure team members that its OK to make changes to their learning plans when the context around them changes. Work-based learning has to be fluid and dynamic to survive the environment in which it is taking place. However, the facilitator must be on guard that any changes don't result in the team members being distracted or diverted from the overall aim of the project. All modifications to their learning plans need to be purposeful and focused on achieving the project outcomes.

Another challenge is to maintain the profile and priority of the work-based learning. Because the learning is integrated with work, and because individuals are generally more comfortable with their work than they are with the unknowns of learning, and because it's often invisible to colleagues, work-based learning has a tendency to degenerate back into just work. Only the individual can prevent this from happening but the facilitator can help make them aware that it is occurring and develop strategies to reprioritise the learning back to higher profile.

Communication is the third big challenge for learning facilitators. This is specially so when the work-based learning team is made up of many independent individuals each working on their own project. In this context the purpose of team meetings can be misunderstood leading to them being seen as unnecessary and as an interruption, hence the facilitator needs to make the value of the team meetings clear as well as find other communication strategies and ways of sharing learning among team members. Its through the dialogue that takes place in team meetings that the facilitator helps ensure the individual team members keep focused on the 'big picture' of the project and provides the opportunity to gain different perspectives on their newly forming understandings.

Perhaps the most important challenge for the learning facilitator is to help the work-based learning participants recognise their learning. This involves conversations peppered with critical questioning to draw out and make explicit the learning that has taken place and implications of that learning.

These 'learning conversations' are perhaps the most valuable that a facilitator will have with the participants. Without them it is possible that the participants will not recognise how new understandings may affect their future teaching and learning practices; they may fail to consciously and deliberately take their new understandings into account.

Equity in Australian education and training: an examination of access and outcomes data across the sectors[1]

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ABSTRACT

This paper reviews the available data on education and training outputs and outcomes across the sectors for six major equity groups. The review indicates that:

- cross sectoral analyses of equity outcomes are hampered by the lack of uniformity of data
- while education and training outputs and outcomes for most targeted sub-groups have improved in absolute terms over the past decade, members of these social groups remain disadvantaged in relation to the rest of the population
- not all members of a particular target group are equally disadvantaged and membership of more than one equity target group has been shown to compound the educational disadvantages faced by individuals
- low socio-economic status is a significant sub-category associated with poor educational outcomes within all target groups.
- a low level of educational attainment is a predictor of poor participation and achievement in post-school education and training, including participation in adult community education
- a low level of educational attainment is also associated with low-socio economic status.
- Year 12 retention is an inadequate indicator of educational outcomes from schooling. As school subject knowledge remains highly structured and hierarchical, the subject participation and achievement (outcomes) for specific social groups need to be monitored along with retention rates (outputs).

From this review, the authors conclude that government equity strategies could be improved by:

- targeting low-SES students within all equity groups
- identifying two new target groups - those with low skills and the unemployed
- focusing on the outcomes (and not just the outputs) of education and training and strengthening genuine pathways into employment
- improving data collections across the sectors in ways that enable a better analysis of the effectiveness of equity initiatives.

EQUITY TARGET GROUPS IN EACH SECTOR

For over twenty-five years Australian federal and State governments have implemented equity programs in education and training targeted at specific social groups. Equity programs are sector-specific and implemented separately in each of the four sectors of schools, VET, higher education and adult community education

The six population sub-groups that are the target of equity policies in most sectors of education and training are:

- Indigenous Australians
- people with a disability
- people from low socio-economic (SES) backgrounds
- women and girls

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[1] This paper draws on research undertaken by Dr Louise Watson, LifeLong Learning Network, University of Canberra, during 1999. The larger project, of which this work was a part, was funded by NCVER.

- people from rural and isolated backgrounds
- people from non-English speaking backgrounds (NESB).

The main difference in the definition of equity groups across the education and training sectors is that low-socio-economic status students are not identified as a target group in the vocational education and training sector. This is probably because this sector has traditionally catered to a higher proportion of students from low socio-economic backgrounds than from high socio-economic backgrounds.

Since the 1980s Commonwealth labour market programs have directed education and training assistance to the long-term unemployed, although unemployed people are not generally identified as an equity group in sector-based policies.

THE IMPACT OF EDUCATION AND TRAINING ON SPECIFIC GROUPS

The impact of education and training on specific equity groups is usually examined by comparing their outputs and outcomes in relation to the rest of the population. Although the scope of the sector-specific data collections are limited and there are variations in the years for which data are reported there is sufficient similarity in reporting of outputs and outcomes to make observations about the condition of equity groups in more than one sector.

The most fundamental observation is that the distribution of education and training outcomes still reflects the distribution of family background characteristics such as wealth and parents' educational attainment. For all equity groups this pattern is common across the sectors and for all social groups. More specific observations on each social group are summarised below.

INDIGENOUS AUSTRALIANS

Of all the identified equity groups the most comprehensive data on educational outcomes across the sectors relate to Indigenous Australians (see, for example, Robinson and Bamblett, 1998)

Participation patterns for Indigenous students reflect the hierarchy of the education and training system, with the highest rate of Indigenous participation in the vocational education and training sector and the lowest in higher education. The relationship between access, retention and completion rates for Indigenous students differs in the vocational education and training and higher education sectors.

In the vocational education and training sector Indigenous students have high rates of access relative to their share of the 15-64 year-old population and a high retention rate relative to other students (0.94 against a reference value of 1). While retention rates are high the pass rate of Indigenous students is three-quarters the rate for non-Indigenous students (0.73 against a reference value of 1).

In higher education, Indigenous students have a reasonable rate of access (the same as their share of the adult population) but a lower retention rate than in vocational education and training (0.78 against a reference value of 1). The pass rate of Indigenous students in higher education is slightly higher than Indigenous students in vocational education and training but still much lower than the non-Indigenous university student population (0.78 against a reference value of 1). The Year 12 retention rate for Indigenous students in secondary school is only 31 per cent (0.43 against a reference value of 1) so the Indigenous students who are successful in gaining access to university courses are more highly selected from their own population than non-Indigenous students. Nevertheless the attrition rate for Indigenous students remains higher than for the rest of the university population implying the existence of institutional barriers to participation and completion.

Course type: given the low rate of Year 12 completion among Indigenous students, it is not surprising that high proportions of Indigenous students in vocational education and training and higher education are in preparatory courses. In vocational education and training, 47 per cent of Indigenous students are in the preparatory stream, compared to 25 per cent of non-Indigenous students. In higher education, 30 per cent of Indigenous students are in enabling courses, compared to 1 per cent of non-Indigenous students.

A higher proportion of Indigenous students in vocational education and training transferred to further education and training (45% compared to 39% of non-Indigenous students). However transferring Indigenous students were more likely to remain in the vocational education and training sector (74% compared to 68% of non-Indigenous transfers) than to proceed to a higher education course (16% compared to 23% of non-Indigenous transfers).

Employment pathways: the labour market outcomes for Indigenous students who complete vocational and training courses are less favourable than for non-Indigenous students. In 1998, 49 per cent of Indigenous graduates were employed compared to 73 per cent of non-Indigenous graduates. Twenty-two per cent of Indigenous graduates were unemployed, compared to 14 per cent of non-Indigenous graduates.

An economic study of the private returns to education for Indigenous Australians found that Indigenous male and female graduates who completed post-secondary qualifications obtained a relatively high financial return on their participation in education (Daly and Lin 1997). However, Daly and Lin also found that Indigenous students who completed Year 12 had a lower than average return on their additional years of schooling..

In summary, the data suggest that there has been substantial improvement in the outcomes of Indigenous students in the education and training system over the past two decades. From a very low base in the 1970s, the participation rates of Indigenous students has improved in all sectors of education and training (Robinson and Bamblett 1998). However, as the number of higher education students doubled between 1988 and 1998 (DETYA 1998), the participation and success rates of non-Indigenous people have also increased. Relative to other students, the educational outcomes of Indigenous students remain significantly poorer than the rest of the population.

STUDENTS WITH A DISABILITY

A key problem in comparing educational outcomes for students with a disability is the range of disabilities within the population sub-group and the impact of those disabilities on educational attainment. For example, the data collections do not differentiate between students with a physical and intellectual disability.

There are also ethical issues involved in asking students to self-identify as having a disability and it is likely that the category is under-reported (ANTA 1998b:13). There are insufficient published data available on students with a disability in schooling or adult community education to make observations about these sectors.

Students with a disability are more likely to be engaged in lower level courses, have higher withdrawal rates and lower rates of completion in vocational education and training (NCVER 1996).

Although students with a disability are under-represented in higher education, their retention rates and completion rates are comparable with the rest of the student population (DETYA 1999A).

STUDENTS FROM LOW SOCIO-ECONOMIC BACKGROUNDS

Socio-economic status (SES) appears to have a significant effect on participation and achievement in senior secondary schooling, higher education and adult community education (NBEET 1996 DETYA 1999A). The educational participation rate of low-SES students deteriorates between schools and higher education. The Year 12 completion rate for low-SES students is 0.75 the rate of high-SES students, whereas in higher education, the participation of low-SES students in 0.42 of high-SES students.

Although 57 per cent of low-SES students are retained to Year 12, they appear to lack either the motivation or the marks to gain admission to university. This illustrates the inadequacy of Year 12 retention as an indicator of educational outcomes. Year 12 retention is an indicator of participation (output) rather than educational outcomes because it does not reflect subject participation or student achievement (both of which influence post-school education and employment (Ball and Lamb 1999, Teese et al 1995). Once admitted to university, the retention rate of the low-SES students is barely different to the student population as a whole.

In vocational education and training low-SES students are more likely to have higher levels of participation in TAFE than high-SES students (Ainley and Long 1998: 390). As ANTA does not recognise low-SES as an equity group, no national institutional data collection is available for the VET sector.

In adult community education, participation increases with socio-economic decile. In 1995, people in the second highest SES decile participated in adult community education at more than twice the rate of people in the second lowest decile. Participation also increases with level of formal education (AAACE 1995). In all sectors low socio-economic status appears to cut across each equity category, particularly Indigenous Australians and rural and isolated students.

WOMEN AND GIRLS

The available data indicate that young women complete Year 12 at a higher rate than young men but are under-represented in higher level maths and sciences. This appears to limit their options for post-school education and employment (MCEETYA 1999). Young women from high-SES backgrounds are more likely to be enrolled in higher level maths and sciences than those from low-SES backgrounds. At the same time, young men from low-SES backgrounds are over-represented in traditionally 'male' subject areas and experience relatively low levels of achievement (Teese 1995).

Women are more likely to participate in post-compulsory education and training in all sectors except vocational education and training, where female enrolments are slightly below those of males. Women comprise three-quarters of total participants in adult community education (Senate Employment, Education and Training Committee 1997:37, ACFE Board Vic:1998). Women outnumber men in university enrolments and female secondary students are more likely to complete Year 12.

In higher education, while women outnumber men overall, they are under-represented in Agriculture, Architecture, Engineering, Business/Economics and Science courses, and in Higher Degree programs (DETYA 1999). After graduation women are:

- less likely to be in full-time employment: of those available for full-time employment after graduating from universities, females (78 per cent) were less likely than males (80 per cent) to be in full-time employment
- less likely to be employed in the private sector: only 38 per cent of female graduates are employed in the private sector, compared to 61 per cent of male graduates
- more likely to be employed in the health industry (30 per cent compared to 11 per cent of males), and in the education industry (19 per cent compared to 9 per cent of males). (GCCA 1999:18-19).

In vocational education and training, female students are under-represented in non-traditional areas and in apprenticeships. Female students account for less than 8 per cent of enrolments in Trade Certificates and women are more likely to enrol in non-award courses than males (ANTA 1998b, 12).

While roughly equal numbers of women and men participate in TAFE courses, 24 per cent of males are enrolled in the fields of engineering/surveying compared to 3 per cent of females. The highest proportion of females (26 per cent) are enrolled in business/ administration/ economics and in VET multi-field education (22 per cent). This field has the poorest labour market outcomes (NCVER 1999a: 33, NCVER 1999b: 11, Ryan 1999).

In 1998, 79 per cent of male TAFE graduates were employed after their course, compared to 67 per cent of female TAFE graduates. However, male graduates were almost twice as likely as females to be employed full-time (64 per cent compared to 35 per cent of females). Thirty-two per cent of female TAFE graduates were unemployed or not in the labour force compared with 20 per cent of male TAFE graduates (NCVER 1999b: 10).

The prior employment status of the TAFE student has a significant effect on his or her likelihood of being employed after completing a course. In 1998 ninety-one per cent of those employed prior to their course were employed after graduation, compared to 46 per cent of those who had been unemployed before their course. Of those unemployed prior to their course, 42 per cent of women

TAFE graduates found employment compared to 52 per cent of male TAFE graduates (NCVER 1999b: 121-123).

The average weekly earnings of female TAFE graduates working full-time were significantly lower than the earnings of male graduates in full-time work. The disparity in earnings persists in almost every level of qualification and regardless of field of study.

In summary, an equity issue for women in post-compulsory education and training appears to be that women graduates have poorer employment outcomes than men. Women are less likely to be employed full-time upon graduation and their wages are lower than men with comparable qualifications. Women graduates of both vocational education and higher education courses also experience lower incomes than male graduates. The persistence of poor wage outcomes for female graduates relative to male graduates in all sectors could be related to female students' chosen fields of study, but is also likely to be evidence of persistent structural discrimination in the labour market.

RURAL AND ISOLATED STUDENTS

People from rural and isolated backgrounds are disadvantaged in terms of education and training outcomes in all sectors compared to urban dwellers, with the highest level of disadvantage being suffered by isolated students. However, access to vocational education and training does not appear to be an equity issue for rural and isolated students. The participation rate of rural and isolated students in vocational education and training is higher than for urban students.

Data on educational outcomes for rural and isolated students tend to reflect multiple group disadvantage, as rural dwellers are more likely to be from low socio-economic backgrounds and high proportions of isolated students are Indigenous Australians. There are little data on the participation of rural and isolated students in adult community education, and provision in this sector tends to be concentrated in urban areas (AAACE 1995)

STUDENTS OF NON-ENGLISH SPEAKING BACKGROUNDS

Non-English-speaking background was found to be too broad a category to be useful in identifying disadvantaged students in any sector of education and training. For example, groups as different as second-generation European migrants and recently arrived refugees do not suffer similar types of educational disadvantage. The extent of diversity within the NESB category suggests that a major re-definition of NESB as an equity group is needed, or that NESB should be replaced by more relevant categories of disadvantage.

One option could be to report participation and outcomes for sub-categories of NESB students (such as date of arrival or proficiency in English). As a minimum, the language or country-of-origin of NESB students should be reported in the data collections. At present NCVER reports statistics for this group in vocational education and training (see, for example, NCVER 1999). Characteristics such as low-SES, low skills, or unemployment, could also be used to identify sub-groups within NESB who are most disadvantaged in the post-compulsory education and training system.

MULTIPLE GROUP MEMBERSHIP AND INTRA-GROUP DIFFERENCES

Membership of more than one equity target group has been shown to compound the educational disadvantage faced by individuals. Golding and Volkoff (1998) analysed employment outcomes for vocational education and training students and found a positive relationship between the percentage of graduates who were not working and membership of more than one targeted equity sub-group.

The equity sub-groups identified by Golding and Volkoff were: Indigenous; with a disability; unemployed; low skills; non-English speaking backgrounds (NESB); rural; and women.

Golding and Volkoff (p 11) found that:

- Only ten per cent of individuals who were members of one target group were not working after graduation
- Graduate unemployment rose to 40 per cent of individuals who were members of two target groups
- Fifty per cent of members of three target groups, and 55 per cent of individuals who were members of four target groups were unemployed
- Eighty-five per cent of individuals who were members of five or more target groups were not working after completion of their course.

The labour market disadvantage faced by vocational education and training graduates who are members of targeted social groups is compounded by unemployment status and low skills. Golding and Volkoff (1998b) found that members of target groups who were long-term unemployed had worse employment outcomes after graduation than members of social groups who were employed or not in the labour force. Members of target groups who had low skills were even less likely to obtain work on completion than members of target social groups who were long-term unemployed. The capacity to learn new skills appears to be more important in achieving labour market success than any other factor associated with group disadvantage, including unemployment.

On the other hand, as discussed in previous sections, there are sub-groups of students within the equity target groups who have no difficulty succeeding in the education and training system. These students are likely to come from higher socio-economic backgrounds or possess exceptional academic abilities that enable them to overcome many of the economic, social and cultural factors that serve to disadvantage other members of their social group

While education and training outputs and outcomes for most targeted sub-groups have improved in absolute terms over the past decade, members of these social groups remain disadvantaged in relation to the rest of the population. The trend towards rising levels of participation in all the sectors has tended to mask the fact that specific groups remain under-represented in relation to the rest of the population. In addition, there appears to be a negative relationship between access and outcomes for target groups in higher education. For example, the three universities that have the highest rates of access for Indigenous students all have very low retention and success rates. By contrast, the universities that have lowest rates of access for Indigenous students have the highest rates of success. Whereas students with a disability, low SES students, and rural and isolated students all have low rates of access to higher education, their retention and pass rates are no different to the general student population. This suggests that many individuals from target groups who gain access to higher education would be 'over-selected' and that this influences the outcomes data.

To address the needs of those individuals who face multiple disadvantages equity policies and programs could be more tightly targeted to the members of groups most in need of assistance. How this could be done is discussed in the next section.

IMPROVING TARGETING WITHIN SOCIAL GROUPS

There is a rationale for continuing to target equity policies and programs to specific groups. As many social groups suffer common barriers to educational participation and attainment, it is efficient for institutions and systems to address these barriers in a uniform way.

Low socio-economic status is also a significant sub-category associated with poor educational outcomes within all target groups. A low level of educational attainment (in other words, low skills) is a predictor of achievement in higher education and is also associated with low-SES. If governments want to define sub-categories within social groups who are most in need of equity services, they should target sub-groups who are from low socio-economic backgrounds, have low skills, or are unemployed. As there is a high correlation between these three categories of disadvantage, these sub-groups could be targeted in all sectors, as appropriate. For example, while the category of unemployment is irrelevant for policy purposes in schooling, low-SES and low achievement would be sufficient to identify disadvantaged students in secondary schooling within all the equity groups.

For policy development and accountability purposes, the measurement of low socio-economic status should be improved. The use of postcodes as an indicator of low-SES appears inadequate for identifying individual students in need of equity assistance. To ask students to identify levels of family income would be highly intrusive and inappropriate at the institutional level. A less intrusive means of identifying low-SES students would be to identify their parents' highest level of educational attainment and occupation, as recommended by Western et al (1998).

Western et al. found that occupation and education form the key dimensions of socio-economic status that impact on an individual's ability to participate in higher education. They argued that the collection of information on individual student characteristics and their households was the most effective way to identify socio-economically disadvantaged students for targeted equity initiatives, rather than relying on surrogate measures of socio-economic status derived from area-based measures (Western et al. 1998, 17). This measure would provide a vastly improved means of targeting equity services and of monitoring educational outcomes for disadvantaged students.

NEW TARGET GROUPS

Two new factors now appear to be linked with labour market disadvantage: low skills and unemployment.

The importance of education and training to the economy and society has increased in recent years in the wake of structural changes to the labour market. The disappearance of unskilled jobs over the last two decades has meant that educational attainment is increasingly important to obtaining jobs and remaining in steady lifetime employment. Below-average school attainment now has a strong relationship to a person's likelihood of being unemployed when they leave school (Marks and Fleming 1998: 8). The 'deepening divide' between those who are involved in and those who are marginal to education and training places an estimated 300,000 young adults at risk of labour market disadvantage (Spierings 1999:10).

Unemployment has a significant impact on a person's capacity to find work after completing a course of education or training. The employment rate of vocational education and training graduates who were unemployed prior to commencing a course is half the employment rate of graduates who held jobs when they commenced their courses. Only forty-six per cent of graduates who were unemployed before the commencement of their course were successful in gaining employment the following year, compared to 88 per cent of those who were employed before the start of their course (NCVER 1999A: 15).

Unemployment and low skills are not completely adequate for identifying disadvantaged students because they are educational outcomes as well as input characteristics. The point of defining equity groups in terms of input characteristics is to try to help those most at risk of experiencing poor educational outcomes, before the poor outcomes eventuate. The category of unemployment is also not useful at the school level, and given the parlous state of data collections on school education outcomes, it will be a long time before school education authorities report information on student achievement in a meaningful way. An alternative is to target low-SES students within all equity categories as a means of identifying students at risk of educational disadvantage after Year 10.

The increasing level of disadvantage associated with low skills and unemployment indicates the significance of lifelong learning as an educational outcome for all students. While equity strategies should be focussed more on the individuals most in need within equity groups, the services provided need to be more comprehensive in scope and integrated with genuine pathways to employment. Ryan (1999) argues that post-course employment for both VET and higher education students could be improved by assisting students into employment activities during their courses. He advocates either a restructuring of courses to include a work-experience element or the re-direction of student employment services towards facilitating with-in course employment.

DIRECTIONS FOR POLICY

All Australian governments have policies in place that promote access and participation in education and training for all who are able to benefit from it. From our review of access and outcomes data for equity groups in the four sectors, we conclude that the following issues warrant further attention:

- governments should consider targeting low-SES students within all equity groups. Poverty has been shown to be a significant indicator of educational disadvantage in all sectors, especially when combined with any other identified form of educational disadvantage.
- the existence of intra-group differences within equity target groups could create inefficiencies in existing equity programs and strengthens the case for targeting low-SES students within equity groups.
- as low skills and unemployment are now linked to labour market disadvantage, these categories could be recognised as equity target groups
- given that low skills and unemployment are linked with low participation and attainment at the school level, students at risk of failing to satisfactorily complete secondary school should be targeted as a specific equity group.
- government policies in all sectors need to facilitate genuine pathways between education and employment for the most disadvantaged members of equity groups, such as those who are low SES, low skilled or long-term unemployed.
- The effectiveness of government equity strategies would be enhanced by improving the quality and uniformity of data collections on student pathways.

Our cross-sectoral analysis of equity data indicates that much has been achieved in recent decades. At the same time, however, the dynamic nature of the social and economic structures of our society ensures that efforts to achieve more equitable outcomes remains a major social justice imperative for governments.

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Three years down the track: what has worked; what hasn't — a review of a 100% online delivery program in TAFE NSW

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ABSTRACT

The information Technology teaching section at OTEN has been running an online delivery program for three years. It has chalked up a considerable number of successes but there have been some important lessons to learn. This paper covers the background of the development of the 400-hour Certificate Level 4 course with an outline of the pedagogy and the educational outcomes.

Topic area: Flexible delivery approaches
Keywords: Online delivery, methods, tools

INTRODUCTION

Four years ago the Information Technology teaching section at OTEN [URL-1] started delivering a TAFE certificate in PC Support via the World Wide Web. The delivery model adopted was completely different from the established OTEN methods, it was designed to make use of the opportunities the Web offers for extensive communication and interactions between participants.

The certificate is the Certificate Level 4 in Information Technology (PC Support), course number 3602. It is a 400-hour nominal duration course consisting of 13 modules. The vocational outcome of a student completing this course is to work as a PC support officer or help desk operator in a medium to large sized organisation.

At this stage we are ready to make some informed reflections on what has worked and what we would change next time.

BACKGROUND

In 1999 there were more than 3000 students enrolled in IT courses at OTEN. The IT section uses the established OTEN delivery systems for the majority of these courses. The delivery of the Certificate in PC Support is different not only because all modules are offered via the Web, but also in its underlying pedagogy.

The usual OTEN model allows students to set their own schedule and to choose the order in which they study their modules. A student completes modules before starting new ones. The teachers provide support mainly in a reactive way when contacted by the student for a purpose. A significant part of the costs are involved in the development of the learning materials so that the more students the better the economy of delivery.

In spite of this additional flexibility for the student the OTEN methodology is in fact a very efficient model where costs are kept to half of those for college delivery, even including the high costs of development of materials. With the Web we have been able to return somewhat to the use of active teaching in the sense discussed by Fitzgerald (1999) in the article "Toward a model of distributed learning". In this article he discusses the evolution of education from the crafted and active "Oxbridge" model into the large scale and more passive lecture/exam style.

Online teaching the PC Support Certificate

The exciting thing about the Internet is the way in which it can be used for communicating between people, it is just as easy to send a message to a whole group as it is to send it to an individual. It allows the teachers to become an active motivating component in a student's learning process.

We delivered a single module using the WWW in 1996 and we examined closely what that group of students liked best about this method of study. What they liked best was the ability to communicate quickly and easily with us, both for learning the content and for sorting out administrative issues. They also loved being able to find out about the other students studying the same module and communicating informally with each other (Gibson 1997).

The following year when we offered a complete course we made sure that we preserved these aspects in our delivery style. We emphasised the human interactions and minimised the use of sophisticated multi media. Multi media would have limited which students could access our resources because of the limitations of telecommunications at the time. Because of ensuring that our lines of communication were well established we were able to take some risks with our delivery materials. They were often developed "just in time" to be released to the students and we depended on the students themselves carrying out the final review process because the teachers were able to quickly correct any errors or omissions.

The course is now in its fourth year as a 100 per cent online delivery. It has been very successful in its measurable outcomes and the levels of student satisfaction. The only reason it will be withdrawn in 2001 is because of changing curriculum offerings. In 1998 one of the online students won the TAFE NSW State medal for the course against many students studying in college classroom environments.

Outcomes

A comprehensive analysis of the outcomes of the course was presented at ODLAA (Webb & Cilesio 1999a). Tables 1, 2 and 3 are updated tables to include the 1999 - 2000 data.

Table 1: Working rates 1998-1999

	Working Rates
1998	88%
1999	89%

Table 2: Module completion rates 1997-1999

	Module Enrolments	Modules Completed	Module Completion Rate
1997	164	65	40%
1998	472	292	62%
1999	660	472	72%

Table 3: Course completion rates 1997-1999

	Enrolments*	Withdrawals	Completed in first 12 months		Completed to date		Re-enrolled in 2001
			n	%	n	%	
1997	23	17	5	22%	6	26%	run out
1998	50	33	11	22%	14	28%	3
1999	64	22	30	47%	30	47%	12
2000	56	-	-	-	-	-	-

*Adjusted for withdrawals in first 10 days

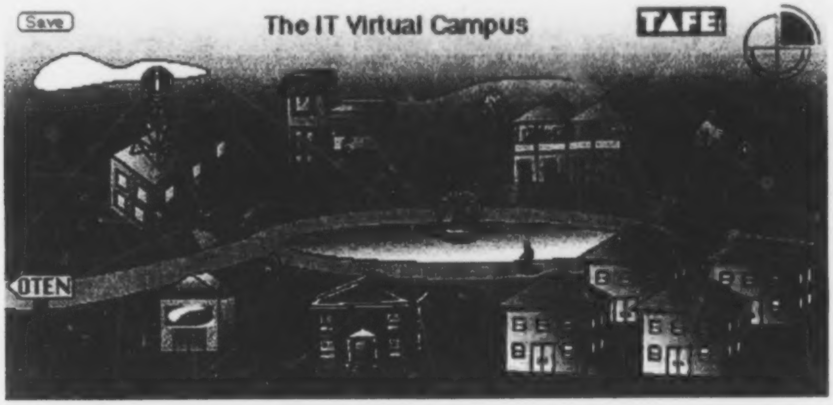
In the third year (Table 3), you can see the extraordinary jump in course completions in the first 12 months. This is in a large part due to the pro-active teaching style which was developed and refined by the third year.

THE TOOLS WE USED

The server

The technical base of our online delivery is a Netscape Enterprise web server and Informix back-end database running on a dedicated NT server with a permanent connection to the Internet, and a collection of HTML pages and LiveWire scripts. All the HTML pages conform to a site template with consistent navigation clues. Collectively it is called the OTEN InfoTech Virtual Campus (<http://vc.tafensw.edu.au>).

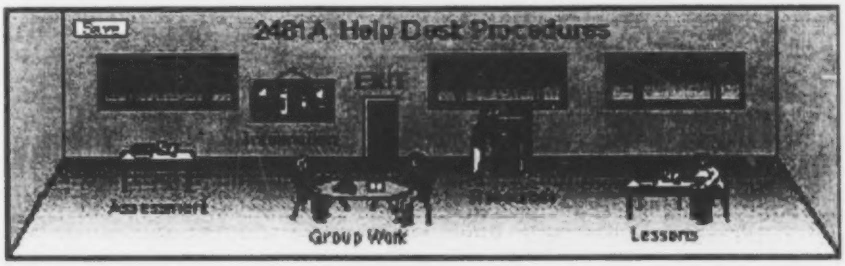
Figure 1: Home page of the OTEN InfoTech Virtual Campus



Provision of Information

The metaphor used for the web site is a "virtual campus". The campus comprises a number of buildings which contain different categories of information. For example, course information is in the Campus Information Office and student contact details are in the Members Residence. Learning materials are in the Classrooms Buildings area of the campus.

Figure 2: Clicking on the door opens up the classroom where all the learning resources are found.



The classroom areas of the virtual campus are only accessible by students and members of staff. This is controlled by the Netscape Enterprise Web Server which asks for username and password. The virtual campus metaphor works very well as it allows students to guess where information is located based on prior experiences at school and TAFE colleges. It also provides a template so that all classrooms are structured the same and therefore provides consistency in navigation.

Annotations

Annotations is a system developed at OTEN for use on the Virtual Campus. It provides three main functions.

1. It permits students to interact with the teacher and other learners by adding comments to a page (Figure 3). This is particularly powerful when used on learning material pages as it simulates face-to-face classroom interactions. A student can post a question to a page, all students see the question and then the teacher can post a response and again all students see the response. Hearing others ask questions and hearing the teachers answers is a very important learning strategy for many learners.

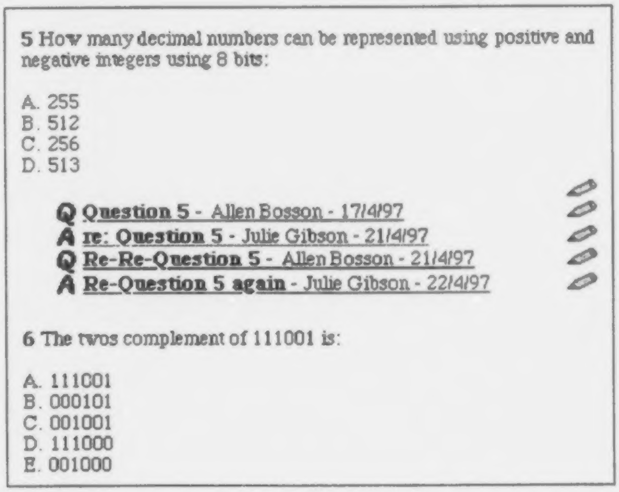
BEST COPY AVAILABLE

2. It provides a mechanism by which teachers can add and update their pages on the site without being physically present at a TAFE campus and ensures that pages have a familiar look and consistent navigation.

3. Because the annotation system stores all the students email addresses teachers and students can communicate with the whole class by sending an annotation, with no need to keep email addresses up to date.

Figure 3: How annotations appear on a web page.

The user must click on the links to see the questions and answers. The pencil icon is used to add annotations.



5 How many decimal numbers can be represented using positive and negative integers using 8 bits:

A. 255
B. 512
C. 256
D. 513

Q **Question 5** - Allen Bosson - 17/4/97
A **re: Question 5** - Julie Gibson - 21/4/97
Q **Re-Re-Question 5** - Allen Bosson - 21/4/97
A **Re-Question 5 again** - Julie Gibson - 22/4/97

6 The twos complement of 111001 is:

A. 111001
B. 000101
C. 001001
D. 111000
E. 001000

Other communication technologies

We use e-mail, text-based synchronous and asynchronous conferencing, Annotations and listserver distribution lists.

The e-mail server software is Netscape Mail Server 2.02. It runs on the main server system. All students are provided with an e-mail address in the 'vc.tafensw.edu.au' domain. These addresses are aliases to the students' real addresses and it is up to the students to keep their email address up to date.

The Virtual Campus links into a WebBoard [URL-3] which is customised for the use of our students. This is used for both asynchronous discussions within subjects and Chat sessions.

Assessment system

We provide no automated online assessment, all assessment items are sent to a teacher and commented on to provide feedback for the student to assist in improving and developing their skills. The materials contain text-based activities to allow the student to carry out self-assessment tasks.

We have nothing against on-line formative assessment but did not see it as important as making use of the Internet to foster increased levels of communication between the people. So our resources were directed away from developing on-line assessments.

Some assessments, particularly assignments are present on the Virtual Campus as HTML pages and can be opened and printed at any time. Tests on the other hand are only made available when the student is ready to do the test. In addition, tests must be completed within a specified time. A supervisor must be present and sign a slip to establish this.

The assessment system issues a test to a student when requested as long as the requirements are met. When the student clicks on the link, their identity, the details about the test and the time at which it was requested are noted in the database. When the student has finished the test, she sends it back to a system e-mail address as an attachment. The system notes the time the e-mail is received and therefore the teacher will know how long the student had the test. In addition, the teacher, found from the database, will be notified that the student has returned their test and the student is sent an acknowledgment that the test paper has been received.

Teachers can publish student results as a web page in the Assessment area of their classroom, but this must be hand crafted since the system is not set up for this.

Weekly Roll Call

Students make contact on a weekly basis by registering a weekly roll call message. We use an Internet survey program called EForm [URL-4] to send the students a message to which they can reply. The returned messages are added to an Access database and an updated HTML page is published on the web site using the new information. We also create a roll call page for the whole term based on the weekly data.

WHAT WE DID WITH THE TOOLS

"Computers alone cannot educate anyone" (Holmes 1999) And neither will the Internet, it's the people using these tools and how they do it that really counts. In a college the classroom provides an environment for learning, bringing teacher and learners together. The interactions between teachers and learners motivate and promote much of the learning. The classroom itself is just a place, as is the online environment. The tools listed above are just that, like the whiteboard or the overhead projector in a classroom, they are only of use when there are people actively using them.

The WWW allows us to make resources available to students that previously were only available by attendance at a college, but these resources are passive information until they are transformed into knowledge and then to learning (Fitzgerald, 1999) by the activities of the students and teachers. So how we make use of these tools is going to be what makes or breaks the project.

Learner Profile

Our students are made up of equal numbers of male and female, mostly aged between 30 and 40 years, and generally employed full-time. A majority live in metropolitan Sydney and all want to get a position involving PC Support. Their reasons for choosing to study online at OTEN vary but are basically due to being unable to attend a normal college program. Reasons include:

- Busy full-time job or life
- Geography and distance (Norfolk Island, far north, south and west NSW)
- Local college not offering this course
- Disability which prevents college attendance

Module Teaching

The methods for teaching the individual modules is as follows:

Modules are timetabled to have learner support

Modules are offered at scheduled times so that a student completing all modules on time will be able to complete the course in a set time. This allows us to schedule practical workshops and also allows us to provide learner support for the time that a module is offered. This is similar to the way that most universities offer their distance education programs.

Learner support takes the form of an online teacher pro-actively working with the students by setting weekly goals, motivating the group and individuals, enhancing weekly learning tasks with topical additional material and dealing with module administrative matters.

Students are encouraged to stick to the study timetable. If a student falls behind then they can work at their own pace and complete the module at a later time but we cannot guarantee learner support outside timetabled period because of the cost of making teachers available in this way.

Learners that want to work ahead of the timetable can commence modules with no guaranteed learner support. Continuing students can either wait and study modules with a timetabled class or choose to study without learner support.

Resources

Learning materials have been instructionally designed to be suitable for self-paced learning. They are placed on the web site, but students can choose whether they want to print them and study offline or use a downloaded version offline or study online. The visual design of the web pages is such that the printed version is comfortable to read. In a paper by O'Hara and Sellen (1997) on the comparison of reading materials on paper and online, the authors concluded, "paper still continues to be the preferred medium for much of our reading activity." It was our early experience that students would print the materials rather than read them online. We used to assume that this was just an established habit but the work by O'Hara and Sellen has shown that there are many practical advantages to be had by reading text on paper which are missing from screen. Not least of these is the ability to utilise many senses at once to keep track of place and prepare for moving on.

Due to constraints of time and money we have not developed more specialised resources which can make use of the multi media possibilities of online learning. Also our priorities place human communications ahead of interesting but isolated interactions with the machine. Whenever possible teachers have directed students to make use of resources already available on the Web.

Practical workshops are provided where students had to travel to Sydney to carry out both some practical learning tasks and the assessments involving hands on skills with PCs.

Assessment

In the online environment we have, on the whole, adhered to the OTEN requirements for assignments and tests. Students can download a test in the presence of a supervisor. The test is taken and returned via e-mail and the supervisor signs a printed form and mails it back to OTEN.

Assignments for which there are no supervision requirements are downloaded from the classroom on the web site and usually returned by e-mail when complete. Each teacher will specify the format required for the documents submitted. We found from experience that the form the attachments take can cause enormous difficulty for teachers.

If the assignment includes materials which cannot be e-mailed then the teacher can specify that printed assignments be posted to OTEN.

Reporting

Teachers keep their own records of assessment events and send them in to OTEN regularly so that the records can be kept up to date, these records are used both for off-site teacher payments and for OTEN student records. When the student completes the module, a final result must be submitted to the TAFE student information system via an official mark sheet which is completed by hand.

This is an area where our system is duplicating effort and the administrative effort required by the teachers is unnecessarily time consuming.

Selection of students

Application for enrolment in the course can only be made online. A web form for the applicant's details is submitted online and the data collected in the database. We do not accept postal applications as basic Internet competency is one of our additional entry requirements and online submission is taken as a partial indication of competency.

The data collected from the online application helps with processing the applications during the selection process and also provides us with basic contact information for successful applicants.

The data collected at this stage is separate from the official TAFE enrolment information and this creates another source of unnecessary duplication of administrative effort.

Learning Community

We work very hard at maintaining a learning community by making use of the networking ability of the Web in the following ways:

- Online teachers provide weekly announcements in their online classrooms to inform and motivate learners.
- Teachers appear to be available to answer questions by e-mail and annotations at all times through the students' ability to submit their questions as they think of them.
- Synchronous and asynchronous discussion groups are available as teaching devices.
- The course manager writes two newsletters a week. One newsletter is for students and covers general issues and matters relating to the course. The second newsletter is for staff and replaces the weekly staff meeting announcements.

ANALYSIS OF THE TOOLS AND TECHNIQUES

The actual choices made were not necessarily the best possible solutions but were often just what we could get at the time. Having worked with this system for a full three years now we know more about what we would like to have in the best of all possible worlds. Table 4 is a summary of our conclusions about what worked and what didn't.

Table 4: IT's online delivery program: what worked and what didn't

Tools/ Techniques	Students	Teachers	Administration/Managers	Remarks
Web-based server	+ Available from anywhere on the Internet.	+ Simple for teachers to make changes to the pages in their areas.	- Need to provide for technical support of server, and to manage the user accounts etc.	We have liked having the management of our own server because we have been able to experiment and get things right.
Provision of Information	+ Flexible access, can choose time and place to study. + Always know where to find class notes. - Expense of printing materials.	+ Lists of students to broadcast messages to. + Timely updates and changes to materials.	- Support for teacher and student access issues. - Backup systems, archives. - Management of versions of materials and students access to old versions.	Publishing content means that you can be sure of what a student has been able to access. Teacher managed updates means it can be kept current.
Annotations Technologies	+ Sharing questions and comments with other students. + Able to communicate easily with the rest of the class. + Able to see what questions other students have asked about a particular bit of the class notes. - Sometimes getting too much extra info about areas already studied.	+ Easy to communicate with the group. + Saves multiple answering the same question. + Provides easy indication of changes needed for next time. - Need to clean up old comments from last class. - Students are not familiar with the use of annotations and misuse them.	+ Creates a completely visible trail of teacher student interactions. + Able to audit the teaching/learning processes.	Able to create a classroom dynamic, helps make isolated students *feel* that they are a part of a group of students. Simplifies management of communications. Puts the teacher back in contact with their class.
Email	+ Direct contact from teachers at any time, from any place. + Can contact the rest of class directly through class lists provided. + Can initiate contact with teachers.	+ Can communicate with all students. + Can establish one to one relationship with students. + Can broadcast messages. - Can become too much work.	- Need to provide a way to keep email addresses up to date. + Students can update own records.	
Chat	- Not at convenient times. + Strong feeling of participation for some. - Difficult to get a word in for others.	- Problems getting enough students available at the same time, maybe different for bigger groups.	* Provision made but not used. Chat is provided as an optional tool to teachers.	Not of primary importance but worth having available for some groups. An optional tool which should be available when a teacher requires it.
Forums	+ Opportunity to create special purpose discussion with other students. - Required a different area and username to log on so didn't do it	+ Opportunity for class discussions. - Not used much.	* Provision made, not used. - Extra overheads of managing user accounts, security, backups, maintaining currency.	Students used annotation for this purpose.

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Tools/ Techniques	Students	Teachers	Administration/Managers	Remarks
	much.			
Assessment system	+ Fast turnaround of work with comments and marks from teacher. - The steps required to submit an assignment or test are confusing. + Great to be able to do tests at home. - Difficult to find a suitable test supervisor.	+ Can use various electronic assistants to mark assignments. - Large amounts of organising needed because of OTEN and TAFE reporting requirements. - Vulnerable to line drops.	- Depends too much on teachers' organising skills. - Missing or duplicated information common. - Special training for clerical workers to cope with different documentation.	In spite of all the difficulties it is still so much better for students to receive fast turnaround for their results and feedback. It is our first priority in redesigning this system to add an efficient assessment management/student records system which minimises the extra administrative effort.
Electronic Newsletters for course	+ Keeps learners informed about general events and deadlines. + Serves to remind students that they are doing this course.	+ Keeps teachers informed of what's happenning in program.	- Time consuming.	Yes. A significant element in creating the bond between all members of the community.
Weekly Roll Call	+ Simple to use.	+ Indicates that this student wants to be part of this community/class. - Doesn't indicate that a student is working on individual module.	+ Provides a good indicator of student commitment and participation.	Once it's set up it is trouble free, but there may be more effective measures which capture it to the individual module level and can capture how much attention the student is giving.
Modules are timetabled to have learner support	+ Provides motivation to get work done while teacher support is available. + Means there is access to the specialised teacher when you need them. - Fixed schedule may not fit with personal needs.	+ Good having students working together through module so that similar issues can be dealt with for whole group. - Needs more chasing of slow students.	+ Easier to organise teachers time for support. - Require much more organising of whole course.	It costs more but gives much better completion rates.
Orientation Day	+ Get to meet other students. - Have to gather in one place at one time. - Difficult and expensive to get there. + Opportunity to ask questions in person.	+ Teachers get to meet students. + Messages go to all involved with immediate feedback. + Can clear up misunderstandings immediately. + Ensures all students have skills to get started when they get home.	+ Verify all user accounts. - Stress testing of server when everyone accesses it at same time.	In spite of the extra work and expense, the orientation sessions saved on later misunderstandings and created the first bonds between students.
Workshops	+ Hands on learning and demonstrations. + Able to meet up with students met	- Often unfamiliar environment to work in.	- Locating laboratories with suitable equipment. - Locating suitable teacher.	Good for student experience if able to attend. If organisation difficulties are not too big then would repeat.

Tools/ Techniques	Students	Teachers	Administration/Managers	Remarks
	online.			
Resources	- Expense of providing own equipment.	- Students have a large variety of equipment that the teacher is not necessarily familiar with.	+ No need to provide equipment for practical work.	The only way to ensure students have hands on access to equipment. An incidental benefit is the students develop a greater level of skills in having to find and set up their own equipment.
Results feedback	+ Good to be able to see whole classes results to see how individual marks are fitting in.	+ Nothing set up to do it so lots of extra effort.		In designing an automated system we would include the ability to see the whole classes results/progress (anonymously)
Selection of students	- Long winded application process.	+ Automated system of collecting application data was easy to use. + Careful selection of existing ability to use internet meant fewer problems unrelated to course content.	+ Additional admin effort to set up automated system. - Not connected to enrolment system so data needs to be reentered.	If the online selection system could be integrated with an online enrolment step it would be excellent.
Learning Community Student/staff biographies	+ Able to see who else is studying the course. + Some information available on other students.	+ Able to get an understanding of the students as individuals from biographies published.	+ Space provided for students to introduce themselves to the rest of their class.	A very important aspect of simulating college dynamics.
Online enrolment	- Not available.			Very desirable – the closer we can get to 100% online for all processes the more to be gained.
Online assessment	+ Could be interesting.	+ Useful for tracking progress.	- Expensive to create useful system.	Would like to try this

CONCLUSION

For those students who prefer to study off campus, online delivery has many advantages over other techniques in its ability to create a community. But until systematic automation of the administrative tasks can be provided we will have to limit the amount of effort teachers put in to foster a community experience for students.

What students want is to have all the benefits of studying in a college environment without the problems of time and location. Not only do they want to learn new skills, they want to complete a qualification and meet up with colleagues also involved in their field.

What teachers want is to have autonomy over their teaching space online at the same time as accessing the institutional administrative databases and shared resources systems. Teachers want to get on with their teaching and have all the administration handled for them.

What managers want is to ensure that a reliable and quality education service is provided at a minimum cost.

Everyone is likely to be happy if technology is used to minimise the repetitive tasks and let the individuals get on with the more creative aspects of teaching and learning.

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URLs (Links)

URL-1	The OTEN (Open Training and Education Network) home page: <http://www.oten.edu.au/oten>.
URL-2	The InfoTech Virtual Campus home page: <http://vc.tafensw.edu.au>.

URL-3 The O'Reilly WebBoard page: <http://webboard.oreilly.com>.

URL-4 The home page of BeachTech, developer of EForm software: <http://www.beachtech.com>.

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Best practice in managing diversity in TAFE distance learning centres

Kerri A. Weeks

INTRODUCTION

Reports of the work undertaken by Distance Learning Centres (DLCs) indicate that there are many examples of innovative training practice currently being implemented through TAFE institutes in Victoria. Participants are extremely diverse and come from groups who have been widely recognised as disadvantaged. The project was devised on the basis of anecdotal reports that suggested these people included a high proportion of women, people with limited access to transport (particularly home based parents), rural and isolated people, shift workers who are unable to commit to or attend regular classes, people with physical disabilities, people with psychiatric or learning disabilities, and people who have not gained entry to their preferred course and require entrance through other means.

There are many examples of innovative delivery methods employed by DLCs which have enabled individuals from diverse backgrounds and circumstances to successfully participate in training, attain qualifications and advance to further study or employment through the use of customised and flexible delivery methods. Methods employed are diverse and are structured according to individual needs, circumstances and constraints.

A parallel development has been the implementation of the policy of managing diversity, which encourages and promotes a more accessible and inclusive learning and training system for people with diverse backgrounds. The managing diversity approach seeks to optimise opportunities for all individuals irrespective of gender, culture, age, location, disability or disadvantage to fulfil their education and training goals. The approach is underpinned by a number of principles including valuing diversity, recognising and encouraging the contribution of people with diverse backgrounds to the community, and providing learning and training opportunities which focus on a person's needs as an individual, rather than as a member of a particular equity group.

On the basis of the research involving members of the Open Training Network (OTN), it would appear that the practices of DLCs are good practice examples of managing diversity, and are closely aligned with the key principles and objectives that underpin the managing diversity approach. The link between the concept of managing diversity, and flexible modes of delivery, is the focus on the individual, who is not considered and treated on the basis of their membership of a targeted equity group, but rather on their individual needs and skills. The learning environment is structured to support such individual requirements and enhance skills and abilities. This project has undertaken to document and analyse the work undertaken through Distance Learning Centres, and identify models of practice for the implementation of the managing diversity policy within the vocational education and training sector, which in Victoria is marketed as TAFE.

PROJECT AIMS AND METHODOLOGY

This project has been funded by the Office of Training and Further Education (OTFE), and has been guided by the aims to:

03 Gain a clear overview of the nature and patterns of participation of people enrolled through distance learning methods.
04 Analyse participation against the principles of managing diversity.
05 Identify innovative or 'best practice' examples of flexible delivery to diverse groups.
06 Identify examples of diverse students/individuals who have benefited from distance learning methods.

These aims have been fulfilled by the gathering of both quantitative and qualitative information about the work conducted by members of the OTN through Distance Learning Centres and analysing participation data within the framework of the managing diversity policy.

Initially, a focus group session was conducted with the OTN members for the purpose of identifying the links between the concept of managing diversity and their work in TAFE Distance Learning Centres throughout Victoria. A review of relevant national and international literature was completed to investigate current issues and trends in the provision of distance education in the vocational education and training sector.

Quantitative data were gathered regarding distance learning enrolments and the characteristics of participants from both national and state sources. These sources were the Australian Vocational Education and Training Management Information Statistics Standard (AVETMISS) and the national, and state of Victoria, TAFE Graduate Destination Survey Report 1998. The quantitative data were analysed through the framework of managing diversity according to gender, membership of other equity groups, special needs, languages, employment status, place of residence, and field of study.

In order to contextualise this quantitative information, and develop an understanding of the practices of Distance Learning Centres that contribute to managing diversity, a number of structured interviews were conducted with a representative sample of DLC staff, who are members of the Open Training Network, from across Victoria. The participating DLCs were chosen so as to represent the diversity of geographical regions and communities within Victoria, and the associated differences in student populations and needs.

MANAGING DIVERSITY

The goal of the managing diversity approach is underpinned by a number of principles including, valuing diversity, access to and effective participation in vocational and further education, an outcomes focus on performance, responsiveness to clients with special needs, reporting on achievement, and managing diversity as a corporate responsibility.

Managing diversity builds on equity programs and policies that have been informed by notions of social justice, acknowledging that all individuals, irrespective of their background, are entitled to participate fully in the community. Whilst this remains relevant, more recent program developments are also underpinned by economic arguments that inequality of treatment results in under-utilisation of human resources. This contributes to associated costs for governments and restricts economic growth. (ANTA 1996, 3) Equity is perceived to be necessary for both the full development of individual potential, as well as the achievement of economic success. This reasoning is indicative of the outcomes focussed nature of the policy, which promotes that by providing opportunities, and thus creating an equitable environment, providers in the VET sector are proactively working towards the goal of full participation in, and contribution by, all community members to the economy of the state of Victoria.

In the context of vocational education and training, the objectives of the managing diversity approach are met by programs and services that "value and respond to the diversity of the community population, provide accessible and flexible training programs and services, offer choice to participants, respond to students with special needs, and report on achievements". (Barwon South Western Regional Council of ACFE 1998, 6)

Background to Managing Diversity Approaches

Management approaches have changed significantly during this century as a result of the changing roles of industry, technology and the market with the creation of different workplace and learning environments, characterised by changes in the nature of work, knowledge/skills acquisition and the demographic profile of workers. The previously predominant management styles of Fordism and Post-Fordism created a workplace culture which required individuals with diverse backgrounds to assimilate into the dominant culture of the work/study environment that they entered, and provided limited opportunities for such individuals to actively participate in "decision-making, learning or innovation". (Bean 1996-97, 23)

Affirmative Action and Negotiated Targets Strategies are shorter term strategies implemented to enable the recruitment of individuals who identify as members of equity groups in the community, and to encourage and increase their representation at, and participation in, various levels of management in organisations. In contrast, managing diversity is a long term management strategy which aims to change the workplace environment and culture to enable all individuals to participate and reach their full potential. Affirmative Action and Equal Employment Opportunity strategies may remain relevant as a part of the larger management strategy in such an environment to initially recruit individuals with diverse backgrounds into the particular workplace, employment classification/field or industry sector. The principles of managing diversity work towards "changing the system and modifying the core culture" to create an environment which "enables all ... without disadvantaging anyone". (Thomas 1991, 26, 76)

Managing diversity does not provide a prescriptive set of solutions for creating an enabling environment, but rather requires an organisation to evaluate their organisational culture and environment, and to plan and implement relevant approaches which promote the underlying principles of productive diversity accordingly. The challenges presented by such an approach to an organisation are to maintain a long term commitment to the cultural change process, and to achieve a shift in organisational systems and individual mindsets. The aim is to create an inclusive environment which provides opportunities to all participants to make unique contributions to the company, and to strive to reach their full potential.

Implementing a managing diversity strategy in an organisation entails the development, use and availability of a diverse range of communication strategies and practices, harnessing the positive power of, and opportunities created by, new technologies, and implementing planning processes which are mindful of "the values and expectations of the full range of communities serviced." (Cope & Kalantzis 1997, 192) In undertaking such projects, organisations need to view their products from their clients' perspective, and as such, evaluate how their products meet the needs of diverse members of the community on a regional, national and international scale. The results of successfully implementing a productive diversity approach include increased and sustainable economic competitiveness of the organisation's people and products in an increasingly globalised marketplace.

In the context of organisations that provide education and training, managing diversity recognises that an institution's "strength lies in the unique diversity of ...(the) student body- the breadth and flexibility of the learning experience". (Cope & Kalantzis 1997, 139) Learning becomes a broadening experience when an individual's unique knowledge and experiences of the world are recognised and valued, and learning programs implemented to build upon and extend such skills and knowledge. (Cope & Kalantzis 1997, 273)

Proponents of managing diversity note that this approach benefits all participants in the workplace or study environment, not just those individuals who identify as members of minority groups. Managing diversity strategies aim to create an environment in which all participants are given the opportunity and means to reach their full potential, and as such contribute to the creation and maintenance of an internationally competitive organisation comprising diverse members. In the context of education, both course content and approaches to teaching and learning need to be evaluated and altered "to encourage analysis and description of different ways of thinking, learning and doing". (Cope & Kalantzis 1997, 139) The result is a more flexible learning environment which benefits all participants in the sector.

The principles of managing diversity which address the issues of access to, and effective participation in, education and training involve the consideration of the potential customer as well as the existing customer. In the context of the education and training sector, this involves the "identification of potential customers who may be excluded from courses/services as a result of marketing, timetabling, selection and support practices." (NMIT 1998, 6)

FLEXIBLE DELIVERY

During the 1990s flexible delivery has been a priority in policy and planning, with the ANTA 1998 Flexible Delivery Action Plan recognising the national importance of flexible delivery and learning, which meets the demand for flexibility and choice in training and learning options for Australians. Flexible delivery means that a variety of learning strategies are used in a number of different learning environments, in order to meet the needs of individuals' learning styles, interests and training needs. The education and training provider overcomes restrictive factors of time, place and personal limitations, to provide education in the most suitable way and location for the individual learner. (Johnson 1994, 14)

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The intention of flexible delivery is the provision of access to learning for all individuals irrespective of "race, handicap, ability, domicile, previous experience, present occupational situation and preference for learning styles." (Misko 1994, 3) It is this characteristic of adaptability to individual needs that presents flexible delivery as a strategy which encourages the participation of persons identified in the managing diversity Policy. A number of terms are used to describe flexible delivery in the VET market, including off-campus studies, open learning, self paced learning, fleximode or multimode delivery, and distance education. As this project analyses the practices of distance learning centres, the literature reviewed focuses on the use of flexible delivery in the context of the off-campus mode of delivery of course materials.

In accordance with the competency based approach of TAFE a number of strategies provide learners with flexibility in entrance to, and exit from, programs at different stages in accordance with their educational needs, learning style and other individual-specific factors. Further, enrolment practices recognise prior learning (RPL), and assessment on demand means that the skills and knowledge acquired during the course of study are examined at a stage when the learner is ready.

For a provider to successfully implement and utilise flexible delivery methods to increase opportunities for access to, and participation in, education and training programs, regard must be given to the appropriateness of, and interaction between, a number of factors. Previous studies have identified the needs of learners using flexible delivery mode and classified such as advice, access, communication, and administrative needs. Due to length restrictions of this paper these categories are not further discussed at this point, but are used in the best practice model outlined below. Factors for consideration include the interrelation of course content, delivery and support strategies (including the use of technology), educational settings, modes of assessment, choice of instructor and administrative practices. Both course design/materials and student support systems must be of high quality to ensure a successful approach to flexible delivery, including adequate funding of social justice initiatives and responsibilities. (NCVER 1995, 38)

In contrast to a rigid educational system, the learner-centred philosophy and various modes of study, characteristic of flexible delivery offer students and potential students access to a variety of opportunities in vocational education and training. "The increased options that ... flexible delivery provide(s), enable(s) students to find an option that will meet their particular needs, learning style and lifestyle," and as illustrated above provides increased opportunities and choices for people from diverse backgrounds within the community, including people with a disability, indigenous Australians, rural and isolated people, women and individuals with a non-English speaking background. (Kearns 1997, 1)

DATA ANALYSIS

The analysis of quantitative data revealed a number of limitations in using such information to accurately identify the characteristics of the distance education student population. The data collected for the purposes of AVETMISS and other sources, may be unreliable with respect to distance education participation and the characteristics of students enrolled in off-campus mode for three major reasons. Firstly, the data collected regarding student characteristics is based on self-declaration by the student on enrolment forms. It is widely accepted that students may accurately denote the characteristics relevant to their status, actively choose to not to declare and to retain anonymity, or may ignore this section on the enrolment forms. This element of choice introduces a large degree of variability into the collection process and results in data which does not accurately represent the characteristics of the student population.

Secondly, the current AVETMISS data collection model makes it difficult to accurately report the number of off-campus students as there are four possible codes that could be used by institutes, as outlined below, which creates confusion in identifying students studying in off-campus modes and the nature of their study participation in this mode. Further, this lack of clarity also fails to permit accurate identification of the student services needs of off-campus participants.

Delivery Type/Identifier	
01	Campus based (both self paced and lockstep)
02	On-line and remote access (including correspondence)
03	Employment based (eg industrial/work experience, field placement, fully on-the-job training)
04	Other (including mixes of the above)

The other major problem for data collection relates to the current funding model, where modules undertaken in distance education mode are funded at a rate significantly lower than those studied in on-campus mode. There is a perception that Institutes will use every legitimate avenue to obtain the higher rate of funding for module delivery. Many subjects are offered in multiple modes, that is, any combination of on-campus and off-campus mode delivery strategies. If a module features an element of on-campus delivery it will be funded, and identified, at the higher on-campus delivery rate, irrespective of the off-campus delivery elements also required by the subject. These courses may well be administered to a large degree by the staff in distance learning centres who service the off-campus mode elements of delivery. Thus the data will reveal fewer numbers of students using off-campus mode than there are in reality.

AVETMISS

In terms of the representation of equity groups in the distance education student population, 59% are women, 15.5% are unemployed, 11.9% are from a Non-English Speaking Background, 3% are disabled, and 0.3% identify as an Aborigine or Torres Strait Islander. The data doesn't permit analysis of student membership of more than one equity group.

The percentage of total student population that study in distance education mode is highest in the Barwon region (7%), and the Loddon Campaspe region (4.68%).

TAFE Graduate Destination Survey

In Victoria, 4.7% of graduates did not attend formal classes whilst studying at TAFE. This compares to the national rate of 4%. In Victoria, 7.8% of graduates who undertook further study at a TAFE after completing their first qualification, enrolled in off-campus mode. At the national level 10.2% of graduates undertook further study using off-campus mode.

SUMMARY OF DLC BEST PRACTICE

Outlined below is a summary of the DLCs policy and practices which provide examples of best practice in managing diversity.

Client Needs

The DLCs enable a diverse range of clients to undertake vocational education and training using distance learning mode by providing administrative and support services which meet student needs that are categorised as follows:

01 *Advice* — regarding course selection, administrative procedures, DLC and Institute services, ongoing academic and non-academic issues;
02 *Access* — to Institute services, course curriculum and materials, academic advice, appropriate assessment, recognition of prior learning processes, and technology;
03 *Communication* — between students, DLC staff, tutors and other Institute services;
04 *Administrative* — requirements of the DLC, specific courses and Institute departments, including enrolment, assignment processing, exam completion.

Technology

DLCs provide access to relevant technology for students though a number of strategies including the establishment of regional vocational training centres in isolated communities, the use of Institute library and information technology, computer loan programs, and offering practical courses in skills development.

Whilst there is an increased usage of educational technology in the VET sector, a significant majority of students using the DLCs studied in this project do not use relevant technology to obtain course materials or to communicate with DLC staff, and further, do not seek to do so. The reason for such limited uptake in use of technology relates to issues of access, including cost and physical isolation, and skills/confidence levels in using the technology. Thus with technologically based study options widely available, DLC clients choose to study using predominantly paper-based course materials. The academic, administrative and support services provided by DLC staff provide choice and flexibility which enables students to undertake vocational education and training appropriate to their individual needs.

Feedback

DLCs gather feedback regarding the centre's provision of services to meet client needs through formal surveys and informal gathering of feedback by telephone conversations and correspondence with students. The challenge for DLC staff is to distribute formal surveys in such a way as to obtain the highest possible response rate from students. They have developed innovative practices such as including surveys with compulsory module materials and exercises, and by frequent communication with students to determine their levels of satisfaction.

The DLC staff use information regarding services provided by students to continuously improve service delivery and address individual client needs.

Pathways

DLC staff provide individualised advice and counselling to clients regarding the recognition of prior learning, course selection, subject enrolment, course progress, transfer between courses, further education, training and employment opportunities, and referral to appropriate Institute resources, for example, careers counselling or learning support units.

Management and Promotion of DLCs

The value of the services provided by DLCs is promoted by staff in a number of ways including, maintaining a positive environment in the DLC, promoting DLC practices and policies through established organisational reporting mechanisms within the Institute, and with other entities and networks in the VET sector, and regularly interacting with DLC staff from other Institutes.

SUMMARY OF THE PROJECT FINDINGS

The practices and policies of the DLCs evaluated in this project are examples of best practice in addressing the needs of individual students with diverse backgrounds and in promoting cultural change and encouraging the management of issues of, and opportunities for diversity. These best practices are summarised as follows:

01 Policies, implementation plans and actual provision of student service delivery to diverse students
02 Processes for identifying client groups for whom these services are provided
03 Clearly defined contacts for service and course provision for students
04 Staff and resources allocated to coordinate an integrated distance learning and support service delivery
05 Easy access for distance learning students to receive up to date course and career information
06 Provision of comprehensive induction into courses and information which familiarises distance education students with all aspects and services available from the Institute/campus
07 Established procedures for access to essential equipment
08 Undertakes responsibility for communication between TAFE provider and student and between students, for example, by newsletters and student network support
09 Students are given opportunities to evaluate programs and student service delivery through formal and informal feedback mechanisms
10 Client feedback information is used to continually improve DLC policy and practices in student service delivery.

The project findings reinforce that students who enrol in vocational education and training courses by distance learning mode have a variety of vocational and non-vocational reasons for study. Whilst contributing significantly to the individual's chances of obtaining employment after course completion, the study experience also significantly contributes to increased self esteem and empowers students to take control of many aspects of their lives and encourages life-long learning.

The project revealed that quite often, students' needs are not adequately identified on enrolment forms for a number of reasons. By taking the time to consult with the student on an individual basis, DLC staff gather information regarding individual study needs, abilities and expectations. Knowledge of these needs, and the creation of a staff-student relationship, prior to module enrolment greatly assists centre staff in providing appropriate services for the duration of module enrolment, and contributes greatly to a positive study experience for the individual client.

Participation in the Open Training Network (OTN) was identified as a valuable source of professional development and support for DLC staff. OTN activities provide opportunities to share information regarding best practices in DLC management and student service provision, plan for future challenges, and promote the achievements and needs of DLC and staff to other individuals and organisations in the vocational education and training sector.

In light of the diversity of individual needs addressed by DLCs, and the changing environment of the vocational education and training market and distance education provision, DLC staff expressed the desire to undertake professional development training in order to develop skills in change management and other relevant fields, and to assist in the development and implementation of succession planning strategies.

Many DLC staff noted the need for DLCs to establish closer links with industry and industry training boards, in the future, in order to continue delivering relevant programs which are cognisant of the training needs of employers and students, in the context of their particular region of Victoria.

Whilst the increasing relevance of technology is acknowledged, the project reveals issues relating to access and skills in using such technologies and their differential impact for students and potential students in metropolitan and regional communities. DLCs offer flexibility and real choices for individuals seeking to undertake vocational education and training in distance education mode, by providing appropriate academic, administrative and advisory support which focuses on the individual needs of the clients.

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Flexible delivery approaches — evaluating outcomes and informing learning

Lesley Wemyss

ABSTRACT

Culturally Sensitive Flexible Delivery to Indigenous People that Achieves Positive Outcomes

The delivery of training in a culturally sensitive manner is vital to achieve positive outcomes when training indigenous people. Within this paper I will examine many of the do's and don'ts when delivering culturally sensitive training. Case Studies will be presented where practitioners can work together and determine how delivery could be adapted to promote cultural sensitivity. From delivery we will look more to output. A range of outcomes from the Case Studies already examined will be presented and evaluation techniques will be discussed using the Kirkpatrick Model as a base. We will develop an evaluation strategy and design instruments at the reaction level and learning level. In summary this paper will move from examining culturally sensitive training to learning new evaluating strategies. Both will ensure that informed learning and positive outcomes take place.

INTRODUCTION

Cultural sensitivity is arguably one of the most typical and controversial issues today. Culturally sensitive training is however a must when delivery training to Indigenous groups across any vocational skills area. Access and Equity principles state that people with cultural and linguistic backgrounds other than those of the dominant group, should be accommodated in the provision of training services.

In the delivery of training to remote indigenous communities there are many different issues that have to be resolved and considered. These include the distances needed to travel, the appropriateness of Courses and trainers, resources, interactive delivery methods and the ability to think intuitively.

One of which is culturally sensitive delivery.

BACKGROUND

According to the 1996 Census,

> ...the rate of unemployment for Queensland's Indigenous population was approximately 23%, excluding indigenous people on special projects, it rises to 35%. Queenslands overall unemployment rate was 9%. Youth unemployment for the same period was 45%. In addition, only 18% of the State's indigenous population aged over 15 years had completed year 11 or 12. (Queensland Government, February 1998, p.14 -15).
>
> ...Therefore the lack of sustainable economic employment and business opportunities for indigenous people in the State, means that around 47% of Queensland's Indigenous population aged 15 years or over, had an annual income of $10, 000 or less. (Queensland Government, February 1998, p.15).
>
> ...It is well recognised by the Queensland Government that improved education leads to higher levels of employment opportunities. (Queensland Government, February 1998, p.2).

The main deficits that have been determined are:

- high innumeracy rates
- poor spelling and comprehension rates
- high skills deficits, particularly in the areas of plant operators and trade skills.

Since much of my Company's delivery is in remote Indigenous communities, our objective is to deliver flexible, culturally appropriate training that achieves positive outcomes.

CULTURALLY SENSITIVE TRAINING

Lesley Wemyss Training Company has developed strategies and benchmarks in the delivery of culturally sensitive training, these are:

- Culturally appropriate language and setting for training.
- An understanding of the basic protocols for consultation, negotiation and participation with Indigenous.
- An appreciation of diversity within the Indigenous communities.
- And a manner respectful for the understanding of culture, people, history and land.

There are a number or do's and don't's with regard to culturally sensitive delivery. Contained within the 'do' list are the following:

- Priority number one is to select the right trainer.
- Select the appropriate learning materials.
- Learning must be interactive.
- There should be two-way learning ie equal priority to European and Indigenous knowledge.
- Do not set-up individual competitiveness, it is not conducive to Indigenous learning.
- Provision of specific Literacy and Numeracy support where required.
- Sensitivity to family/tribal structure — family commitments and natural shyness.
- Awareness of the collaborative learning styles of indigenous.
- Consistency of training staff.
- Positive relationship development between learners, trainers and family.

Conversely there are a number of don'ts that need to be taken into consideration as well:

- Thoughts taken and expanded from the Torres Islander Academic, Dr Martin Nakata, that while being aware of cultural sensitivity is a good thing — it should not be at the expense of outcomes.

- While visual and oral modes are often the most successful modes for Indigenous learners, do not preclude the use of texts, in other words don't bypass texts if they are necessary for the outcome.

- While we know that Indigenous learn best by the collaborative process and don't like to be individually competitive, be careful that in following this learning style, that they will not cope with, or even access the individually competitive world of higher education or employment.

TWO CASE STUDIES OF OUR REMOTE DELIVERY

Case Study One

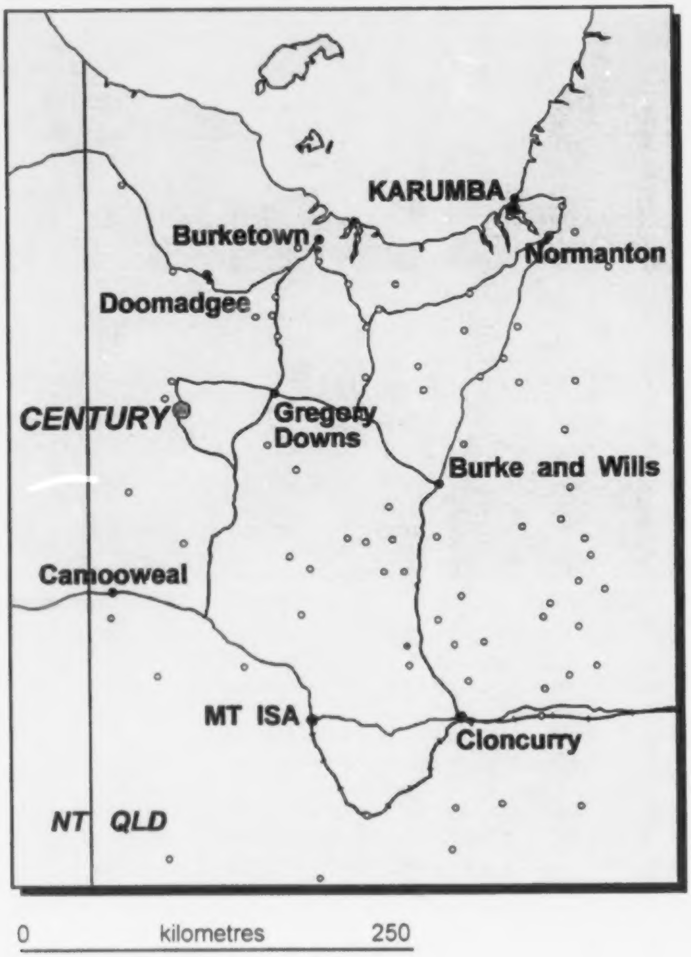
Two and a half years ago we were selected from a short list of Training Providers to develop and deliver an Employment Skills Preparation Course for Pasminco Mining Company in the gulf of Queensland (see Diagram 1: Map of the Gulf Communities). This was a major task and formed part of the Gulf Communities Agreement, between Pasminco and the Native Title groups, Waanyi, Mingginda Gkuthaarn and Kukatj.

> ...The Agreement is a strategic alliance between the parties and forms a basis for working together to achieve benefits for all. (PCML and the Education, Employment and Training Committee, February - March 1999, p.8-9).

Within a month we developed a program that incorporated Literacy and Numeracy assessment, two National modules in Communication and Job Search and mapped out a career pathway that led those suitable into either further training, or employment. The course was four weeks long, with two weeks of training and then two weeks of work experience with a contractor on site, that matched their skills and interest. While we were expected to have success no one predicted the 74% success placement we achieved over the next fourteen months of these nine courses we delivered.

It is all the more amazing when you look back at the clients we were greeting as they arrived off the charter flights from their communities. I do remember that in the four groups that I trained, often they would get off the plane without even shoes, an issue in a safety conscious environment such as a mine. Then we would begin to fill out forms and many, many participants would not have Bank accounts and Tax file numbers, I envied them this simplistic and unworldly approach to life. These were issues we addressed and many others throughout our delivery. However important to remember that the lack of shoes etc. did not ultimately affect the participants ability to gain employment and sustain employment.

Diagram 1: Map of the Gulf Communities



'...Indigenous Queenslanders face an unemployment rate six times greater than the average, and youth unemployment is a serious problem' (Queensland Government, February 1998, p.2).

Recognising this problem, and the opportunities that could be created by a new mining operation in the region, Pasminco committed in the Agreement to actively promoting the employment and training opportunities for local Aboriginal people. The first stage of this is the pre-employment courses we successfully conducted: *Training that works.*

Case Study Two

We have been delivering extensive Horticulture training to Torres Strait Islanders in three remote Island Communities in Torres Strait for the past two years. This training comprised modules from

Certificate II in Horticulture. Here we are delivering training to a totally diverse and isolated community. This would not be dissimilar to the communities we would encounter in Central Queensland, especially in the Western areas. These Courses have been highly successful and we are currently working with these communities to start a new batch of trainees. We also deliver literacy and numeracy to these students and are the *preferred* training provider in this region for these communities.

EVALUATING TRAINING

As the training dollar is tied directly to outcomes ie work or further training, there has to be accountability. However it is sometimes rather contradictory to the outcome we, as trainers, are looking for, that is, skills or knowledge transfer and hopefully an attitude change.

> '...It is also recognised that the problems Indigenous face (in relation to outcomes) are exacerbated by their low skills, insufficient education and training and often long lengths of unemployment. (Prepared by Senate Employment, Workplace Relations, Small Business and Education Reference Committee, March 2000).

So as a result often over training has to also deal with transference of skills, knowledge, self-esteem, confidence and job search skills. How does all this get measured and evaluated?

If we go back to the principles of Workplace Training then we can measure our success in skills and knowledge transfer and attitude change through using the techniques of maximum reaction and learning level for each participant.

Using the model of Staged Evaluation:

I'll do it ➪ Demonstrate skills/knowledge

We'll all do it together ➪ Set project

You do it yourself ➪ Set project while you're away

Do it again for over learning ➪ Track Participants

Training delivery should meet the appropriate outcomes of the local employment market and always be evaluated against these. Outcomes should be relevant to the community or remote situation in which the participants live. Training should benefit the whole community from which the participants come.

In general evaluation strategies should meet the assessment guidelines of the training Unit, but as well incorporate the underpinning knowledge. However important in the evaluation process is the application of contingency skills and problem solving in other situations outside the original learning. This is where the staged evaluation process is so important not only for reinforcement of the learning but the measurement of learning levels.

Our success in delivery is due to the application of these strategies, as well as our ability to be flexible in our delivery and evaluation methods.

CONCLUSION

We have achieved some great results with our vocational training delivery to remote Indigenous Australians, highlighted by two of the case studies presented. However, we recognise there is a long way to go, there are no easy or quick solutions, only a flexible and sensitive strategy is needed.

Let us say that training is akin to following a fenced path, with many twists and turns, in order to reach a predetermined goal at the end of it. With this in mind we ensure that the Vocational Education we offer to Indigenous people offers equity, cultural sensitivity, choice, support and diversity as well as opportunities which is a great deal more then simply education for Indigenous.

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Lesley Wemyss started her Vocational Training Company 10 years ago, in Queensland. The Company has grown to over 65 staff, and delivery throughout Queensland and New South Wales. The main focus of the Company is the delivery of Vocational Education across 26 different vocational areas up to Advanced Diploma.

Lesley, as a Botanist, developed a great deal of training in the horticultural area, initially due to her background in this field. The Company now delivers to a wide cross-section of clients across all the vocational and industry groups ie. corrective centres across the State, remote communities and specialises in delivery to indigenous people and soon to overseas students.

An introduction to the New Zealand industry training sector and the Industry Training Federation

Paul Williams
Executive Director, New Zealand Industry Training Federation

Eight years after New Zealand reformed its workplace training system, a new government is initiating significant reforms aimed at increasing participation and improving achievement rates. Where previously, industry training largely reflected the requirements of industry, the new Labour-Alliance government wants to be a more active partner. The new government, invoking 'third-way' language, will develop a "...a co-ordinated strategy which lifts skill levels throughout the workforce, and encourages skills that benefit the New Zealand economy as a whole as well as particular individuals."

This paper presents a high-level overview of New Zealand's vocational training framework and outlines key aspects of current reforms from the perspective of the Industry Training Federation[1].

1. REFORM, REFORM, REFORM... THE '80S AND EARLY '90S

The 10 years between 1984 and 1994 were a time of remarkable change in New Zealand. Virtually no part of New Zealand's economic or social structure was immune to the reforms initiated by the Lange-led Labour government[2] and carried on by the Bolger-led[3] National government.

In the early 80's trade training, as it was then known, was largely managed by government through the Department for Labour. Training was confined to a small group of trades and was overseen by industry-specific apprenticeship boards. The conditions of entry and participation was centrally prescribed as were wage rates and conditions. Participation was limited and only a small number of adults were involved.

In 1989, following significant reviews of tertiary education, responsibility for vocational training was shifted from the Department of Labour to the education sector.

Reforms in the education sector aimed to integrate labour market training with the wider education sector. As part of this reform, the New Zealand Qualifications Authority (NZQA) was established. NZQA's primary role was to "...promote improvement in the quality of education in New Zealand through the development and maintenance of a comprehensive, accessible and flexible National Qualifications Framework (NQF)".[4]

Also in 1989/90 Skill New Zealand was established to oversee the development and implementation of the Industry Training Strategy. The primary objective of the Strategy was to extend industry training to a wider range of industries than had been possible under the apprenticeship scheme.

In 1992, the Industry Training Act was passed. The Industry Training Act established a process by which enterprises could group together and form Industry Training Organisations (ITOs). ITOs would be responsible for developing and partly funding training programs to meet current and emerging training needs. The new Industry Training Strategy was to be strongly industry-led and funded and it was left to industry and enterprises as to whether or not they wanted to participate and what form a Industry Training Organisation would take.

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[1] The Industry Training Federation is the national body representing Industry Training Organisations. Currently, there 40 members (out of a total 50 Industry Training Organisations) – these 40 ITOs deliver 95% of the training funded by government.

[2] David Lange (Labour) was Prime Minister of New Zealand from 1984 through to 1989.

[3] Jim Bolger (National) was Prime Minister of New Zealand from 1990 through to 1997.

[4] NZQA Statement of Intent, 1999.

To be successful, the Industry Training Strategy required an increase in both government investment and the investment made by industry. Access to government funding was a key incentive to industry to form an ITO. This funding could then be used for the development of industry standards and the delivery of training.

ITOs have two key roles; firstly to develop industry standards and qualifications registered on the NQF, secondly to arrange for the delivery of training to meet those standards. ITOs fund training, or rather co-fund training in conjunction with individual enterprises, however ITOs do not deliver training. Industry delivers training, either on-job or off-job, often with the assistance of training providers such as polytechnics.

2. PROGRESS SINCE 1990

Significant progress has been made in the eight years since the passage of the Industry Training Act. Key achievements include:

- The formation of 50 ITOs
- As at June 2000, approximately 58,000 people are engaged in industry training - this is an 18% increase on June 1999
- Training numbers increased threefold since 1993 and higher than at any other time since records began in 1923
- A high percentage of trainees are Maori (17%)
- The average age of trainees is 26 and around 80% are over the age of 20
- Many trainees have little or no formal school qualifications
- The Strategy has extended training into new industries such as seafood, tourism and hospitality, sports and recreation, horticulture, and manufacturing. Approximately three-quarters of New Zealand's industry now have access to structured industry training.
- Around 600 new national qualifications have been developed and registered on the NQF.

Strengths of the Current Industry Training Strategy

The key strength of the current strategy is its flexibility and responsiveness to the dynamic training requirements of diverse industries. The process of developing and implementing new training is relatively quick and cheap (relative that is, to traditional institutional processes). In simple terms, trainees can achieve national qualifications while in employment and at a lower cost than if they were to study full-time at a tertiary institution.

According to Skill New Zealand "there is prima facie evidence that a training culture is becoming embedded in industry in New Zealand".[5]. For the most part, the qualifications are robust and of good quality and are sought after by trainees. This is evident in both the increase in training numbers and by the level of industry financial support. Industry training is now generally considered a credible part of the tertiary sector.

Industry's contribution to industry training has also increased significantly. In a briefing to the new Minister of Education in late 1999, Skill New Zealand estimated that industry contributed $102 million dollars to industry training - this contribution was both in cash (around $32 million) and in-kind.

At the same time as Industry has increased its contribution, government has increased total funding from approximately $30 million in 1994/95 to over $60 million in 2000/01.[6]

Because industry standards are registered on the NQF, there is the potential for qualifications to be highly portable. In practice, there are some questions about the portability of qualifications, however there is a trend for ITOs to collaborate in the development of qualifications where there are common training requirements.

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[5] Skill New Zealand Brief to the incoming Minister of Education, December 1999

[6] Total government funding has increased, however government funding per trainee has declined as more and more trainees entered the system.

Key Challenges

The Industry Training Strategy is a young initiative compared with any other form of tertiary education. As a result, there are a number of development issues that are still challenging the sector.

One key challenge is to increase the trainee qualification achievement rate. In the early phase of the development of the Strategy, the focus was on the numbers of trainees - this reflected government's desire to grow the Strategy quickly and secure industry support. There is now an increasing focus on improving the rate of qualifications achievement.

A related challenge for ITOs is to increase the number of small to medium enterprises (SMEs) engaged with the Strategy. There are a variety of reasons why ITOs have not had a great deal of success with SMEs however, given that the vast majority of enterprises in New Zealand employ fewer than 10 employees, this is clearly an important market.

Another related challenge is to fill important coverage gaps where there is no ITO. Both the education and the health sectors have considered working with ITOs but in both cases have chosen not to do so.[7]

Critical to the ongoing success of the Industry Training Strategy is research and evaluation. There have been no comprehensive studies of the impact of the industry training strategy since 1992. Unfortunately, this is not unusual in New Zealand, where there is only passing interest in research and even less in evaluation. To a certain extent, the fact that there has been no research reflects the success of the Strategy. Research will, however, be critical to expanding the Strategy as the focus shifts to SMEs and new industries.

Also important in the process of expanding the Strategy are providers. Providers, particularly polytechnics, have not always flourished under the Industry Training Strategy. The establishment of ITOs was, in part at the expense, of polytechnics. Polytechnics had previously defined what training was delivered and were the major provider of industry training. The Industry Training Act enabled industry to define its own training requirements and gave enterprises greater control over when are where training took place. As result, relationships between ITOs and polytechnics have been difficult, particularly where there has been a preference for on-job training.

3. KEY POLICY CHANGES

The new Labour-Alliance government has signalled that it wishes to play a more active role in Industry Training. Where previously the government was content to leave industry to drive the Strategy, the new government wishes to establish partnership relating to both the form and the content of industry training.

This is *potentially* significant change.

This partnership has recently been described by the Associate Minister of Education (Tertiary Education), Hon. Steve Maharey.

> "... the relationship between education and enterprise is crucial to the development of the knowledge society. An improved partnership between the two sectors will enable us to promote the kind of social and economic developments we need to face the challenges of this new century."[8]

Government's key objectives are in three key areas: young people, 'essential skills', and skill shortages. In a speech to the Industry Training Federation, the Minister spoke of his goals for the sector and how they might be accommodated.

> "Industries and the economy as a whole need industry training which ensures people have the skills needed for the future, including for new, developing industries; and ensures that there are minimal labour

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[7] Note that the current funding policy excludes public sector organisations from accessing funding for Industry Training. Because the education and health sector is largely made up of public institutions, one of the major incentives of the Strategy – funding, is not available.

[8] Hon. Steve Maharey, Tertiary Education in the 21st Century, June 2000. A speech to the Wellington Regional Chamber of Commerce.

> market shortages. And society needs industry training that helps to reduce social inequities; and provides for an educated population that can participate fully in New Zealand's economy and society.
>
> While some of these needs may be compatible, there may also be tensions between these various needs.
>
> The need of individuals for portable skills to ensure their future employability, may conflict with the need of employers for skills which are immediately useful to their industries, which may, in turn, conflict with the need of the economy for skills which will be useful for the knowledge society."

The profile of industry trainees reveals the basis for the government's concern about the numbers of young people in industry training. In the year ended December 1999, only 10% (around 5,000) of all trainees were aged 16 to 19 and almost 70% were aged 25 or older.

From 2001, government will implement a 'Modern Apprenticeship' scheme which will create new opportunities for young people to undertake industry training. The Modern Apprenticeships scheme is largely modelled on Australian and English initiatives and is available to 16 - 21 year olds. Initially, the government has modest objectives for the Modern Apprenticeships scheme, targeting 3 000 Modern Apprenticeships by the end of 2002.

As part of the development and the implementation of the Modern Apprenticeships scheme, the Government established Reference Group consisting of key stakeholders (ITOs, providers, employer and employee associations) to work with Skill New Zealand during the pilot phase of the initiative.

Government is also strengthening the school to work interface by introducing a new policy, 'Gateway', that will enable school age learners to obtain on-site experience in industry.

Literacy and numeracy, referred to as essential skills, are a focus for government. Pilots are currently underway to investigate options for integrating literacy training into industry training. Many ITOs already include literacy training as part of industry training, however this is limited.

Skill shortages are also seen as an area where government wishes to modify the operation of the Industry Training Strategy. In the recent budget, the Minister commented that skill shortages could severely undermine the potential for economic growth. The Minister has signalled that he would be prepared to provide additional funding to ITOs to remedy skill shortages.

4. CONCLUSIONS

The implementation of the Industry Training Strategy has successfully expanded the availability of structured training leading to national recognised qualifications. Growth in participation has steadily increased to the point where demand currently exceeds funding[9]. There are some ongoing challenges for ITOs to resolve for the Strategy to become fully embedded into New Zealand's industry.

We are now entering a new phase in the implementation of the Strategy, one where the government is likely to be a more active partner than has previously been the case. Whether government achieves it's goal of increased participation will depend on the extent to which it funds current growth and on the responsiveness of industry to increased government direction.

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[9] As at the first quarter of 2000, there were 794 un-funded training placements. This equates to $2.4 million in funding.

Current and new research tools and techniques in planning: a practical overview from a Victorian TAFE Institute

Graeme Young & Lucy Stockdale

This paper briefly explores the new developments in research that have emerged with the continued development of the Internet and web-based technology. There has been a strong adoption of the Internet as the new medium for organisations to undertake research. This use has been much more prominent in the USA and Europe than in Australia although we are gradually moving in this direction. Most techniques have been developed initially for the high volume consumer goods market - as indeed are a lot of the research tools that are now well established in the market research industry.

Educational institutions have been, on the whole, quite slow to utilise some of these techniques. If Institutes are to move forward in very competitive times they will need to make better use of timely information from the market and from their customers.

The first section describes a real-life example of the planning system at a large TAFE institute in Victoria. It outlines the current customer research, covering a range of client groups, used to monitor and inform their continuous improvement process.

The next section gives a brief overview of the major new techniques that have taken place in consumer and market research over the past few years.

The last section discusses how these new techniques could be applied to the research that currently occurs at this TAFE institute in order to overcome the inevitable problematic time lag of traditional survey methods.

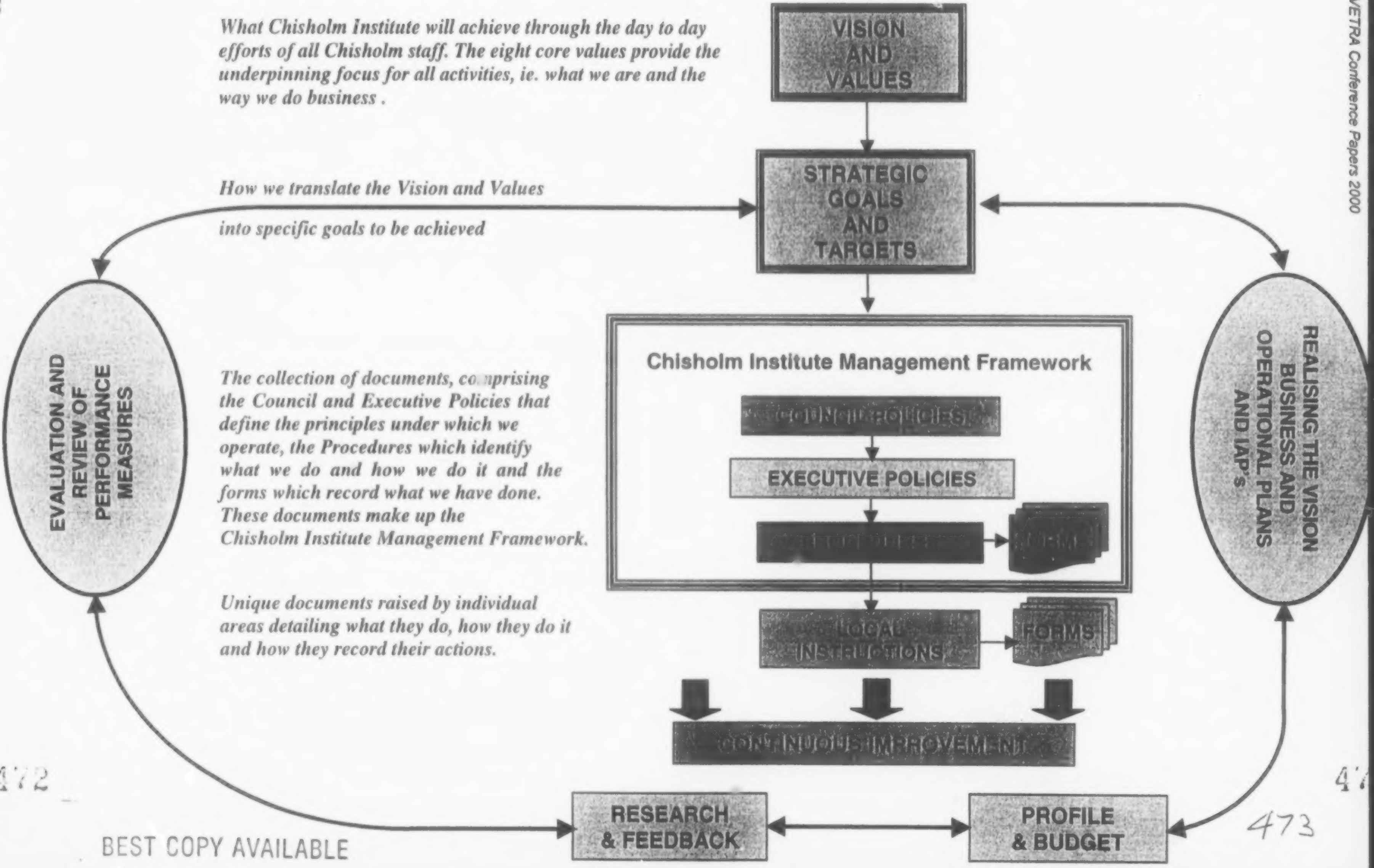
SECTION 1 CURRENT CUSTOMER RESEARCH AT CHISHOLM INSTITUTE.

Chisholm Institute of TAFE, in the south-east of Melbourne is a large TAFE college with 9 campuses. It has over 54,000 students, 2,000 staff and an operating budget of around $150 million per annum.

The Chisholm Institute Strategic Vision sets out the planning framework to meet both strategic and operational objectives. The Institute's Vision (see Figure 1) defines this process:

Vision and Values	Those attributes that are promoted as central to the organisation and supported by staff and students.
Strategic Goals and Targets	Those aims and targets set for the long term (5 years).
Chisholm Institute Management Framework	The processes and procedures that define the structures and operations from the executive level to delivery level, including operational day-to-day activities.
Continuous Improvement Process	This underpins the entire framework and consists of a set of structured planning processes. These processes include the business plan (a long term planning document for each department or unit), the operational plan (an annual planning document for each department or unit) and the individual achievement plan (an annual planning document for each individual in the department or unit).
Profile and Budget	The budget is central to the operations of all departments and units.
Research and Feedback	Customer research links the Strategic Goals and Targets and the Continuous Improvement Process and provides information about trends and factors influencing the environment. The research takes two forms: information or intelligence gathering from industry; and feedback surveys from major customer groups in TAFE.

Figure 1: Achieving Chisholm Institute's Vision



VISION AND VALUES
STRATEGIC GOALS AND TARGETS
Chisholm Institute Management Framework
COUNCIL POLICIES
EXECUTIVE POLICIES
FORMS
LOCAL INSTRUCTIONS
FORMS
CONTINUOUS IMPROVEMENT
EVALUATION AND REVIEW OF PERFORMANCE MEASURES
REALISING THE VISION BUSINESS AND OPERATIONAL PLANS AND IAP's
RESEARCH & FEEDBACK
PROFILE & BUDGET

What Chisholm Institute will achieve through the day to day efforts of all Chisholm staff. The eight core values provide the underpinning focus for all activities, ie. what we are and the way we do business .

How we translate the Vision and Values

into specific goals to be achieved

The collection of documents, comprising the Council and Executive Policies that define the principles under which we operate, the Procedures which identify what we do and how we do it and the forms which record what we have done. These documents make up the Chisholm Institute Management Framework.

Unique documents raised by individual areas detailing what they do, how they do it and how they record their actions.

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This paper focuses on this customer research which covers current and exiting (discontinued) students, graduates, staff, employers and the community (see Figure 2). Table 1 indicates the customer research projects to be undertaken in 2000 at Chisholm Institute.

Figure 2: Research and Feedback

A fundamental step towards achieving outcomes involves understanding and responding to client needs. Research underpins the planning process and supports performance reviews.

Client Satisfaction Studies

These studies find out:

- what was expected or wanted
- what was experienced
- the level of satisfaction with the product or experience
- the degree of relative importance of each variable

Client research helps achieve these outcomes by identifying:

- what influences students to stay
- ways to promote ourselves to students
- employer needs
- factors which inhibit access
- why businesses employ TAFE graduates
- why people do not participate in TAFE
- client satisfaction levels with curriculum, modes of training and administration
- where client needs and expectations are not being met
- opportunities for improvement in these areas
- services which students want, and those which are not wanted
- outcomes achieved by students who undertake TAFE studies

Environmental Scanning

These studies monitor and report social and economic trends in the region. A major component includes the analysis of major data collections such as the 1996 Census from the Australian Bureau of Statistics, DETYA labour market statistics, State Training System data and Chisholm Institute student and employer data.

These studies:

- assist in creating opportunities for people to enrol at TAFE
- ensure the provision of high quality TAFE services
- ensure services are tailored to client needs
- support planning decisions
- guide resource allocation practices.

Table 1: Customer Research Projects to be Completed in 2000

Chisholm Institute
2000 Customer Research Survey Projects

Title	Detail	Current Methodology	Purpose
Course Evaluation Survey	An annual survey of currently enrolled Chisholm students examining course, teacher and support services provided to students.	Scannable survey distributed in class	Client satisfaction data.
Traineeship Evaluation Survey	An annual survey of workplace students and trainees in all traineeship programs at Chisholm Institute.	Scannable survey distributed in class or workplace	Client satisfaction data.
Module Evaluation Project	An on-going survey of the module completed by current students.	Scannable survey distributed in class	Client satisfaction data.
Short Courses Market Research Project 1	A market research project to examine buyer awareness and client needs of organisations in the public sector.	Possibly mail distribution	Short courses marketing data.
Short Courses Market Research Project 2	A market research project to examine buyer awareness of former Chisholm Institute profile students.	Mail distribution	Short courses marketing data.
Library Services Survey	A quarterly survey of students and staff using library services at Chisholm Institute.	Mail distribution	Determining customer needs and levels of satisfaction with unit services.
Discontinuing Students	A survey of students who discontinue their studies.	Phone Survey	Establish reasons why students discontinue to improve programs and services and to reduce attrition rate.
General Staff Survey	A bi-annual survey to determine staff satisfaction and attitudes towards levels of internal service and processes.	Mail distribution/ distributed in work groups	Continuous improvement of process and to provide a measure for the strategic goals of the Institute.
Employer research	A survey of employer attitudes towards TAFE and Chisholm Institute.	Personal interview	Determining customer needs and levels of satisfaction with Chisholm.

SECTION 2
OVERVIEW OF TOOLS AND TECHNIQUES FOR CONTINUOUS CUSTOMER RESEARCH

Organisations need to determine what they need to know from customers, prospects, industry, ITBs and employees in order to take the right actions that will continuously measure and enhance:

- customer loyalty and satisfaction
- the marketing effort
- the development of appropriate courses/programs that are need for industry
- workforce commitment

It is important to decide the best, most effective and timely method to gather customer feedback required to inform the planning and continuous improvement cycle. The interpretation of this information and the prompt action that is taken as a result should lead to the maximization of the responsiveness, competitive advantage and long term profitability of the organization.

There are 2 types of customer surveys

1. **Relationship surveys**
   This type of survey measures all aspects of customer relationships with the organisation - products quality, service quality, ease of doing business, facilities, comparative to other organisations etc. Relationship surveys are only accessible to those who are invited to

participate. These types of surveys provide both strategic and operational customer feedback and are undertaken on a periodic basis.

2. **Transactional surveys**
   These surveys provide continuous feedback on the organisation's performance from customers at key points of contact. The organisation can respond immediately and track the effectiveness of measures taken. Transactional surveys identify the points of contact between the organisation and the customer such as:

   - teachers
   - IT and Student Services help desks
   - customer service centres
   - web sites
   - on-site visits by sales representatives
   - direct marketing/advertising.

   The benefits of these surveys are primarily operational and they are undertaken continuously.

Customer surveys undertaken to inform strategic and operational planning at educational institutions at this stage tend to be primarily relationship surveys. Transactional surveys are not often undertaken.

In order to receive timely strategic and operational feedback on a regular basis to inform the planning and the continuous improvement process it is necessary to combine both relationship and transactional survey types

The development of the Internet as a research medium has opened up the possibility of this occurring although there is still a need for this process to be managed carefully as there will always be a danger of continuous surveying becoming transactional only and not providing the strategic information required.

Although educational institutes may not be able to apply these techniques in the short term, they should be investigated carefully for use in the longer term.

The main tools and techniques include

1. **OMR (Optical Mark Reader) Scanners**
   The use of scanners to process data has become more wide spread and enables a fast turnaround of results. The use of scannable surveys is best for large scale and/or continuous surveys.

2. **Email surveys**
   The most common form is through the use of pure text (ASCII) so that the surveys can be received and responded to by anyone who can receive an email message. There is a need to be careful of the length of these surveys - apart from the obvious problems with long surveys:

   - some email software (eg Lotus cc:Mail) limits the length of the body of an email message
   - longer surveys often have attachments to overcome the above problem but not all users can receive or read attachments

3. **Web Surveys**
   These surveys use HTML. The advantages of Web over Email surveys are:

   - radio buttons, checkboxes and data entry fields are possible in HTML but not in ASCII text and this keeps respondents from selecting more than 1 response and from putting responses where they are not required
   - skips are more implicit than explicit
   - responses can be checked as entered eg can reject impossible answers to age

4. **A combination of email and web surveys.**

5. **Feedback banners**
These come up on a web site and are generally used to test the web site or a service provided on the web site. These are similar to leaving a questionnaire on a table at a restaurant. This self-selection method is called "convenience sampling" and is widely regarded, at least by the market research industry, as producing biased results.

6. **Pop-Up Surveys**
These are a survey page which literally pops up on the screen. Unlike passive links to surveys from a web site, pop up surveys are pro-active and they require that some action must be undertaken by the user, even if it is that they close the window. The most common form of pop-up survey asks whether you wish to be surveyed. Some will come up a couple of times while you are at that site and on the 2nd refusal will state that you won't be asked again. These surveys are good for gaining an insight into online customer behaviour. Demographic data can also be gathered.

This type of survey is very similar to random telephone sampling. In both methods respondents are chosen randomly (every Nth visitor) and are asked if they wish to participate in the survey.

Pop up survey proponents state that they can get up to 10 times the response rate of web surveys.

There are 2 types of pop-up surveys

- **Standard pop up surveys**. These appear when certain pages are visited or immediately after they have completed a particular action. For instance, it can be before entering a section of the site, on leaving a section of the site or when the user has signed on or made a purchase of a good or service. This works by installing a few lines of HTML into selected pages of the site

- **Exit surveys**. These are pop up surveys which occur when a user exits a site. This only requires minor modifications to 1 page of a site regardless of the no of pages which may have been visited and therefore requires less web site maintenance. Sometimes exit surveys can be less annoying than having a survey pop up throughout the browsing of a site.

Commercially, these surveys are used to gain an insight into customers needs and on-line behaviour and help measure the effectiveness of online services. However, as a research technique they are considered by some to be lightweight.

7. **Web panels or focus groups**
Web groups are seen by some researchers as an exciting new approach to qualitative research as new concepts can be developed and tested within one group session. They are a long way from the early days of qualitative research when groups were held in the living rooms of housewives (often Mothers Clubs from the local school who used the occasion as a fund raiser).

Web groups are basically online chat discussions which can extend over the course of a week and include up to 30/40 participants. They cover a very wide geographical area in comparison to the conventional focus group discussions which are typically limited to 1 to 2 hours with 8 to 12 participants.

The facilitator sends an email message to all potential participants raising an issue for discussion. If participants wish to join the group they click on the box and join the discussion. When participants first enter a web focus group they can view an outline of comments from other participants and the facilitator. They are able to respond directly to any comments they wish. All participants have their own unique identifier and are able to participate any time of the day or night. Some web groups in the US require participation for 10-20 minutes a day over a 4 - 7 day period. It is thought that the information gained is more insightful than that gained from an off-line group as participants can reflect overnight on their answers. Ideas can be changed and refined over a period of a few days and concepts can be presented to participants using sound and high-resolution graphics

As with off-line focus groups there is usually a payment or incentive in the form of cash, contests and give-aways. The only pre-requisites are you must be over 16 years of age and have an email address.

8. **Concept Mapping**

Concept or relational mapping is a process that enables a group to map ideas and data and the arrangement of symbols on a map indicating how these ideas are thought to be interrelated.

Concept mapping as a tool has been around for some time. However, its application via computer provides greater flexibility, involvement of a wider range of customer groups, ease of undertaking the sorting and rating tasks and the benefit of fast analysis of complex datasets. It is an extremely useful, if somewhat under-utilised, research tool which can guide an organisation in their strategic and organisational planning efforts as well as marketing, change management, measurement and product development. The potential uses for concept mapping are limited only by the imagination and creativity of the users.

- It can be used as a communication device.
- It summarises a lot of information into categories and provides a common language that can shape subsequent planning. It helps to simplify and structure the process.
- It can provide a structure that can be used to organise strategic planning efforts eg into committees around each grouping/internal-external distinctions.

The process used:

- Allows all participants to have a say. Concept mapping is most valuable when it includes a wide range of participants. There is no limit on the number of people who can be involved but the most practical size to ensure a variety of opinions as well as good group discussion is about 20.

- Often begins with very specific concrete everyday brainstormed ideas and then moves to more general abstract concepts eg where should the organisation be in 5 years; what actions should the organisation take to improve itself over the next 5 years etc

- Is simple to apply. Once all the statements are collected participants are asked to firstly sort them into piles that they consider are similar and then rate each statement in terms of its importance or relevance.

- Visually presents data so that it is easily understood. The sorted and rated information is analysed using multivariate analysis to locate each statement as separate points on a map and grouped into clusters which are then labelled and rearranged prior to interpretation.

It is interesting to note that in the US many businesses are currently using concept mapping as a method for developing a shared vision for a training program, for helping the trainers keep 'on track' as the program is developed and evaluating the effectiveness of the training.

SECTION 3 POTENTIAL APPLICATION OF NEW RESEARCH TECHNIQUES

This section evaluates the possible application of these new research tools and techniques to the current customer research outlined in Section 1 (see Table 2).

Three major surveys involving students are a combination of Relationship and Transactional Surveys (the Course Evaluation Survey, the Traineeship Survey and the Module Evaluation Survey) and are currently distributed in class. New techniques that could be applied include web surveys and pop-up surveys, particularly if students are completing an aspect of the course using a computer or as an on-line student. These could be combined with scannable surveys, distributed in class, to provide access to those students who do not have access to a computer as part of the course.

Two short course market research projects are to be undertaken in 2000. The first involves contact with training decision-makers in public sector organisations. Contact with representatives of government organisations could effectively be achieved through web focus groups, a web survey or directly through an email survey. The second market research project, of former Chisholm Institute Profile-funded students, is currently a mail-out survey and would remain as such as the main contact with former students is directly through their last known address.

The Library Services Survey is a Transactional Survey, as it is a quarterly survey sent to current library users. Contact with students is directly through their last known address and as a result would remain a mail-out survey. Surveying of staff internally is possible using an email survey on the internal electronic mail system. With the development of an on-line library catalogue and borrowing system at some future time it would be possible to use either pop-up or exit surveys for all users of the service.

Table 2: Comparison of Current Methodology with New Research Techniques

Chisholm Institute
Comparison of Application of Current and New Research Techniques

Title	Detail	Current Methodology	Application of New Research Techniques
Course Evaluation Survey (Relationship/Transactional type)	An annual survey of currently enrolled Chisholm students examining course, teacher and support services provided to students.	Scannable survey distributed in class	• Web surveys • Pop-up surveys combined with scannable surveys in class where necessary.
Traineeship Evaluation Survey (Relationship/Transactional type)	An annual survey of workplace students and trainees in all traineeship programs at Chisholm Institute.	Scannable survey distributed in class or workplace	• Web surveys • Pop-up surveys combined with scannable surveys in class where necessary.
Module Evaluation Project (Relationship/Transactional type)	An on-going survey of the module completed by current students.	Scannable survey distributed in class	• Web surveys • Pop-up surveys combined with scannable surveys in class where necessary.
Short Courses Market Research Project 1 (Relationship type)	A market research project to examine buyer awareness and client needs of organisations in the public sector.	Possibly mail distribution	• Web focus group • Web surveys • Email surveys.
Short Courses Market Research Project 2 (Relationship type)	A market research project to examine buyer awareness of former Chisholm Institute profile students.	Mail distribution	• Remain a mail-out survey • Potentially a scannable survey.
Library Services Survey (Transactional type)	A quarterly survey of students and staff using library services at Chisholm Institute.	Mail distribution	• Mail-out • Email for staff.
Discontinuing Students (Transactional type)	A survey of students who discontinue their studies.	Phone Survey	• Phone Survey.
General Staff Survey (Relationship type)	A bi-annual survey to determine staff satisfaction and attitudes towards levels of internal service and processes.	Mail distribution/ distributed in work groups	• Concept mapping • Web focus group • Web surveys • Email surveys • Paper survey for staff with limited access.
Employer research (Relationship type)	A survey of employer attitudes towards TAFE and Chisholm Institute.	Personal interview	• Personal interview • Concept mapping • Web focus group • Web surveys • Email surveys.

The Discontinued Students survey is a Transactional Survey. It is currently a phone survey of those students who have deferred their studies. It would remain a phone survey, as personal contact is the most valuable way of eliciting information from this group. Due to the sensitive nature of the inquiry this technique is seen as the best way to complete this task.

The General Staff Survey is a Relationship Survey and has been previously distributed through the internal mail. It would be possible in the future to use the internal electronic communication system. Other methods could include concept mapping and web focus groups to obtain more in-depth and timely information from staff. To capture information from sessional staff a combination of those listed above and a paper-based survey may be required.

The Employer Research Survey is a Relationship Survey which explores employer attitudes. This has been done by personal interview in the past. In order to provide more timely feedback and reach a wider group the use of concept mapping and web focus groups could be considered. Contact through phone or personal interview may still be the most appropriate technique if canvassing the views of senior management of such organisations.

CONCLUSION

The paper has given a brief outline of the new tools and techniques which are now available to provide more timely feedback from major client groups. Researchers should always bear in mind that the new research techniques can be applied to all customer research however a rigorous evaluation of the appropriateness of their application is necessary. There are instances where it may not be appropriate to use any of the new techniques described, such as where sensitive personal information is required as part of the inquiry.

The adoption of these techniques is reliant on the development of the computer or electronic communication system and the technical skills required to design and maintain such systems. The access to this technology, level of skills and ease of use by participants is also mandatory.

To effectively use the new tools and techniques a formal structure needs to be in place to carry through the process. The planning and continuous improvement framework as used by Chisholm Institute provides a good example of a system that can easily adopt more effective and flexible research techniques which will improve the streamlining of timely customer feedback.

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Measuring long-term impacts of short-term projects

Susan Young
Project Manager, Framing the Future

INTRODUCTION

Framing the Future is an ANTA national staff development initiative which has been operating since 1997. During that time, over 320 project teams have been funded, with over 13,000 participants from all parts of the VET sector and from all States/Territories. There has been a huge amount of activity, but can any lasting and long-term impacts be measured?

This paper will outline the reason for and the process used in a long-term impact study of Framing the Future, undertaken by John Mitchell, from John Mitchell & Associates. The process of identifying and assessing the long-term impacts of staff development activities will be discussed. The challenge of identifying long-term impacts and isolating impacts, which can be attributed to particular initiatives, will also be raised. The paper will explore lessons learnt during this process.

> NOTE: The reader is encouraged to read Mitchell, J (2000) *Re-framing the Future: A Report on the Long-term Impacts of Framing the Future* Australian National Training Authority for more information, as this paper can provide an introduction and an overview only.

SETTING THE SCENE

Workbased learning projects are difficult to describe as a homogeneous group. Each is based around the identification of a real organisational issue or problem. Typically there would be between five and 25 participants in these project teams with a facilitator to guide the process. The group sees the 'problem' as theirs to solve. They develop an action plan, which includes the identification of the learning required and the resources needed to assist. Participants can measure their learning in terms of the initial action plan.

Projects are focused and take on manageable bodies of work, which can be completed within 4 - 6 months. Project teams are encouraged to take a 'one bite at a time' approach to their identified problem, to structure their activities and experience a sense of completion. Most project teams find that the completion of one project usually means that other issues have been identified for further work.

SHORT-TERM MEASURES

Framing the Future project teams are required to evaluate their projects in terms of the participants' learning, the completion of the action plan and the benefits for their organisation. There is a need to establish readily available and useful processes, resources and imperatives within these short-term projects so that evidence can be gathered to satisfy the funding agencies and organisations' needs. This evidence must be gathered from inception, and not seen as something that can be done on completion.

This short-term evaluation can be quite straight forward. A before and after questionnaire provides a fairly reliable measure of individual's learning through the project. Anecdotal evidence is provided of the before and after comments made by participants, and some may even keep learning journals throughout the project.

To assist project teams undertake this evaluation, Evaluating Workbased Learning - a model was written for Framing the Future projects by Laurie Field (1999b). The booklet is designed to assist individual project teams to develop evaluation methods and use the experience as a learning opportunity rather than just compliance.

> 'Sometimes it's hard to put on paper something you can't measure in terms of a performance indicator. But you know there's been a change inside. How do you measure that your staff feel more valued?' [A Framing the Future Project Team Manager.]

Intuition used by the project leaders and managers needs to be taken into consideration also when measuring the effectiveness of short-term projects.

EVALUATIONS CONDUCTED TO DATE

During 1997 and 1998, independent evaluations of Framing the Future have been undertaken by Field and Falk. Both these evaluators spoke of the need to use non traditional methods to measure the value of the workbased learning project teams. Both have alluded to the fact that we tend to resort to the traditional methods as these are both understood by the funding bodies, and are known by the participants. Counting numbers of people involved and numbers of dollars expended is not very helpful in measuring the real value of a workbased learning project.

Narrative and qualitative evidence was gathered from the project participants and has been documented by the evaluations conducted during 1997 and 1998. Wegner, E and Snyder, W (2000) speak of the best way of assessing the value of these loosely configured project teams.

> "The best way for an executive to assess the value of a community of practice is by listening to members' stories which can clarify the complex relationships among activities, knowledge, and performance."

Stories have been written about many of the projects and their work. This must be a systematic effort, capturing the diversity and range of different projects - the successful and the not so successful. The publishing and circulation of these stories can assist in spreading the impact of these short-term projects. Knapsey (1999).

THE NEED FOR A LONG-TERM IMPACT STUDY

Often the real value and effectiveness of these short-term projects is delayed and only recognised by the organisation after the work of the projects has been completed. The need to put in place a long-term impact study was first identified by the funding body ANTA early in 1999. At that time over 140 workbased learning projects had been completed. This provided a sizeable cohort for the study.

The long-term impact study brief was developed in consultation with the funding body ANTA. It was anticipated that the impacts of Framing the Future would be evident at three levels

- the level of individuals (e.g. individual managers; employees; TAFE teachers),
- the level of particular groups (e.g. teaching faculty; particular workplaces; specific institutes)
- the level of whole subsections of the VET system (e.g. follow-on initiatives by particular industry associations; VET Institutes in a particular region; Australian National Training Authority (ANTA) perceptions of how to approach staff development; other associated ANTA initiatives such as LearnScope).

While intuitively most of those directly involved in Framing the Future projects could say that the short-term projects were having an impact more widely, there was a need to substantiate this thinking. Measuring the long-term impact of any staff development activity has never been easy, and using the advice of previous evaluators, a fresh look at how this could be done was required.

John Mitchell of John Mitchell and Associates was appointed to conduct this long-term impact study during the period October 1999 - March 2000.

THE METHODOLOGY

Before commencing the long-term study, the evaluator conducted a brief literature review covering two specific topics:

1. the Vocational Educational and Training context for Framing the Future in 1997- 1999, particularly in terms of the staff development requirements for the implementation of the National Training Framework;
2. methodologies for long-term impacts studies of staff development programs, assessing impacts for individuals, groups and subsections of the VET sector.

In terms of the first topic, the evaluator completed an analysis of all existing Framing the Future evaluation data. The decision was made to build on the findings generated through previous evaluations and to start the long-term impacts study where these had concluded. In terms of the second topic, the brief literature review on evaluating staff development programs involved the examination of four models. Mitchell (2000) Appendix 3: in summary notes:

> 'The review began with an analysis of a basic model (Bramley, 1996) for assessing the impact of training on an individual. Some concerns about the limitations of this model were expressed.
>
> Secondly, the review focused on a model (Bramley, 1996) for assessing the impact of staff development on a group or organisation. The model took into account a range of complex factors, such as the levels of effectiveness to be measured, the behaviours necessary to achieve these levels and the skills, knowledge and attitudes necessary to support these behaviours.
>
> Thirdly, the literature review involved a consideration of a stakeholder model (Mabey et al, 1998), that was a reminder that Framing the Future is but one of a number of internal and external factors that might change behaviours and affect organisational performance.
>
> Finally, the literature review provided a four-stage model of evaluation (Kirkpatrick, 1959), which pointed beyond changes in behaviour to the results from a program, as an indication of where the focus needs to be, in relation to assessing the impacts of Framing the Future on sub-sections of VET. The theories underpinning the above four models influenced the field research for this study of Framing the Future.'

These conceptual models were used by the evaluator to form the basis of the research methodology. The evaluator developed instruments designed to:

- *measure the factors* affecting achievement of objectives;
- *establish cause-effect* interpretations as to whether the outcomes were caused by the program or by external factors
- identify whether there are *unanticipated outcomes* which are contributing to the achievement of objectives or impacting negatively on clients.

One of these instruments was an extensive survey form developed by the evaluator and distributed to project managers of Framing the Future projects conducted during 1997 and 1998.

Mitchell (2000) Chapter 2

> "A total of 51 different project managers of Framing the Future projects responded to the survey, from a total of 108 project managers involved in the Program in 1997-98 (a response rate of 47%. The 51 project managers in many cases managed more than one of the projects undertaken in those first two years of Framing the Future, so around 60% of the projects in 1997-98 are represented in the survey responses: a very satisfactory return rate."

The survey form comprised three Sections:

Section A	a true/false response to a range of questions on the types of long-term impacts which were evident
Section B	a seven point Likert Scale to measure the factors which influenced the impacts
Section C	ten open-ended questions, some deliberately designed to validate previous survey responses.

The responses to this survey form were analysed in terms of long-term impacts on individuals, organisations and sub-sections. The recurring long-term impacts were in the areas of:

- implementation of the National Training Framework in particular Training Packages

- the development of new collaborative arrangements and partnerships between providers and industry/enterprise
- ongoing staff development

In addition to the survey, the evaluator interviewed 41 stakeholders of the Framing the Future initiative. People from the funding body, ANTA, from the Framing the Future National Reference Group and State/Territory contact officers along with ITAB, industry and VET system staff who were involved are listed in Appendix 5 of the report.

In order to be thorough in his approach to this long-term study, the evaluator used another set of lenses to look at long-term impacts. Mitchell (2000) Chapter 6 outlines the measurement of long-term impacts of Framing the Future using this set of lenses.

Sequence of impacts — did the impacts occur in a sequential manner?
Spirals of impacts — did the impacts become increasingly more important over time?
Hierarchy of impacts — are their higher level and lower level impacts?
Suitability of impacts — are the impacts appropriate and aligned with the program objectives?

The variety of approaches to this study provides the reader with confidence that the findings have been tested and validated. The mixture of qualitative and quantitative data collected, analysed and presented also satisfies a range of reader preferences. The quotes embedded throughout the study add a human dimension to the findings.

MAJOR FINDINGS

Mitchell's (2000) Executive Summary notes 'Some major findings from the study include the following points:

- the long-term impacts of Framing the Future projects regularly go beyond the individual developing new skills and knowledge, to improvements in both work performance and organisational effectiveness.
- Framing the Future projects often result in the development of new forms of collaborative networks between industry and RTOs and sometimes across whole industries and States and Territories.
- a number of vocational training providers who are undergoing organisational change to meet the vocational training needs of industry are using the Framing the Future model of staff development.
- the Framing the Future program has progressively become an agent of systemic change, for instance by affecting the way staff development is conducted across a State/Territory or a national industry.'

Long-term impacts of these short-term workbased learning projects cannot be seen in isolation. In analysing the long-term impacts, the evaluator took into account the internal and external influences which work together to optimise the benefits of the projects. The organisational context and culture in which the projects are being conducted influence the likelihood of follow up work being successful. Short-term projects have the potential to be catalytic by nature and the seeds sown in organisations must be able to thrive in an appropriate culture for long-term impacts to be realised.

LESSONS LEARNT

During the course of this long-term impact study, the Framing the Future management team has learnt the following lessons. If short-term staff development projects are to have a long-term impact they need to have:

- clearly defined directions which are linked to the organisation's strategic plans and policy
- real management/organisational support and commitment for the work of the project, that extends beyond the term of the project
- project processes and support which facilitate the achievement of project goals
- clear understanding by the participants that there is relevance and reason for them to be involved - real work, real imperative and value to the individual

- data collected from the beginning, especially the anecdotes and stories

> A constant theme of the Mitchell (2000) report is that positive, long-term impacts are more likely to occur when the funded organisation takes responsibility for providing ongoing staff development, for consolidating the new networks developed with other stakeholders during the project, and for providing continuing infrastructure support. Mitchell (2000) also argues that for optimum long term impacts to be realised, there is a role for the national project management team to continue to provide a range of information-based services to the members of previously funded project teams.

Long-term impacts of short-term project can be measured. By building on evaluations already conducted, by basing measuring instruments on appropriate models and by using a new set of lenses, the evaluator has presented not only a impact study for individuals, organisations and sub-systems, but has provided advice on how impacts could be increased in the future.

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In their own words: what migrants say about succeeding in TAFE

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ABSTRACT

Research into the determinants of success for migrant students at the Canberra Institute of Technology found that English proficiency was only one element; awareness of and ability to operate in a different educational culture was seen by a group of successful migrant students as the principal factor.

Our research, conducted in 1997-98, consisted of taped focus group discussions and individual interviews of 10 migrant students from a variety of cultural backgrounds studying various diploma programs at the CIT. Students were also asked to write about the differences they perceived between the way they had been educated in their country of origin and that of their Australian TAFE experience.

This paper will describe our response to the findings of this research which has involved the implementation of a multi-pronged program of subject-specific, integrated support and staff development. The aim of our program is to increase the success rates of migrant students but a key underlying need is to develop awareness amongst teachers and students of the educational cultural differences between the Australian VET system and that common to many of our migrant students.

Using AVETMISS standards we have consistently shown a significant increase in the success rates of migrant students in our program over the past three years. The findings and approaches described in the paper are equally applicable to International students.

INTRODUCTION

In 1997 the Canberra Institute of Technology employed a Student Services Officer to implement strategies to enhance the success rates of its migrant student population. This was in response to research (Wapshere, 1996) which had shown that, overall, migrants performed at a lower rate than their English-speaking background counterparts and, interestingly, lower than the International student cohort who had access to subject-specific tutorial support.

One of the main strategies employed was therefore the inclusion of such tutorial support for migrants in courses identified by the research as particularly problematic for this group. These courses have included the Communication modules which are part of a Diploma in Information Technology and the Law modules included in the Advanced Diploma of Accounting.

Whilst delivering this support it became obvious to the team that successful module results were not just the product of hard work and proficiency in English. Failure did exist within these parameters and conversely there were instances of students passing whose English was not judged to be adequate.

THE RESEARCH

The team had some ideas as to what the other determinants of success were but decided to ask a group of successful students what they thought. Focus groups were run with ten migrant students who were in their final stages of diploma courses. Their cultural backgrounds varied from South East Asian to Latin American and Northern European, and their courses included Information Technology, Civil Engineering and Office Administration. These students were also asked to complete a questionnaire, write freely about their experiences of studying in a different educational culture and take part in both individual and group interviews which were taped.

What we learnt from the students was what we had anticipated - that the main issue was one of being able to adapt to a new educational culture. Specifically we found that migrant students needed:

- a clear understanding of the underlying cultural expectations of the course and their teachers;
- knowledge of appropriate strategies to fulfil these expectations;
- an environment in which these strategies could be modelled and practised;
- and the confidence and time management skills to implement these strategies.

Students also identified other factors which they had found to be important in Australian education but not as relevant in their previous educational environment. These included:

- the importance of reading widely on a topic;
- the necessity and value of asking questions in class;
- and the independent learning style requiring students to become decision-makers about their learning.

In addition we were able to identify nine distinct stages of transition that many migrant students seem to pass through in coming to terms with learning in a different educational culture. And, from what we learnt from the students themselves, we could describe strategies useful to both classroom and support teachers in assisting migrants to pass through each stage.

All of these findings have been published as *In their own words: a practical guide to helping the migrants in your TAFE class based on the experiences of successful migrant students.* (Sharma, 1999)

SUPPORT FOR MIGRANTS

Knowing that cultural adaptability is a major determinant of success for migrant students, it became incumbent upon us to change our style of tutorial support to reflect this understanding. Moreover we realised the importance of classroom teachers being able to understand something of the educational culture that these students had previously operated in. In fact, wouldn't it be great if all TAFE students had such an awareness? Gradually it became obvious that it was necessary to deal with all three groups if we were to raise the success rates of our target group.

However our main target group was still the migrant students in identified modules. And we realised that the traditional drop-in study centres were not going to allow us to offer either appropriate or sufficient support. Firstly these centres rely on students admitting their weakness to an unknown authority, something which is usually anathema to many migrants, and secondly, if a student does ask for assistance, it is often too late and a last minute band-aid solution in the form of assignment-editing is all that can be given. If we were going to make a difference, we had to become proactive in identifying students at risk and this meant becoming a core part of the teaching-learning experience.

The process that has emerged is as follows. An area is first identified as being at risk of having low success rates for its migrant students through on-going statistical analysis and by the number of students self-identifying on the enrolment form as needing help with English. A tutor is then assigned to a group of modules in this area and becomes part of the mainstream delivery by attending pre-delivery planning sessions, enrolment and orientation sessions as well as the first few lectures and tutorials. This all adds to the tutor's familiarity with the students, their needs, the content of the course and the teacher's particular style and expectations.

The tutor will also maintain email or phone contact with the class teacher to check that the tutorial sessions are directly relevant to the coursework. In addition the tutor may also deliver a guest presentation appropriate to the learning outcomes of the module, for example on cultural inclusiveness or workplace diversity. In this way, not only are the tutors establishing their credibility with the class and the teacher but they are also contributing to the development of an important group of underlying skills for the wider group.

Weekly tutorial sessions are then established with a group of students studying the modules in question. Here students are given support which has a dual purpose: to assist them in successfully completing the module whilst coming to a clearer understanding of its cultural basis. For example, not only would we revise the elements of a good report as taught by the Communications teacher but we would also explain the English discourse system and its reader-friendly, linear style and compare this to the students' own discourse systems. At the same time it is made clear that one system is not necessarily better than another only more culturally appropriate. We have found that it is important here to affirm the value of a student's previous modus operandi as this is a strong part of their persona.

It should be noted that the word *tutor* used above does not imply a lesser status than *teacher*. The word is used to differentiate the role of the staff in our support program from that of the classroom teacher. Our tutors are all qualified teachers, and paid as such, usually with an ESL background and an ability to cope with the content area of a variety of programs.

Sometimes an allowance of time has to be made for these tutors to feel confident with the content of the modules they are assisting with. In an extreme example, the tutors supporting the Law modules had to spend one semester attending Law lectures alongside the students they were assisting. They were given some allowance for this but it was not possible to fully compensate them financially. However, having worked with various models, we have found it more effective to employ an ESL teacher with a background in diversity issues than to employ a subject specialist. This emphasises the importance we place on assisting our students to get up to speed culturally as well as with the content of the course because the latter will not happen without the former. It is interesting to note that the tutors are usually willing to take on this extra load for a short time because of the job satisfaction that ensues. A model to investigate in the future would be to pay the fees of the tutor to enrol in the modules they are assisting with. This way they at least get the added benefit of skills recognition.

STAFF DEVELOPMENT

It was obvious to the team that staff needed to become aware of the cultural differences that impact on a student operating successfully in a new educational environment. Over the past few years members of the team had delivered various such sessions to teachers undertaking our internal Certificate IV in Tertiary Education & Training. But this was only reaching a small number of new TAFE teachers and these were not necessarily working in the areas of greatest migrant need.

A change was needed and fortuitously the publication of our book In their own words provided the impetus for a new direction. It was seen by some as slightly pretentious to have the book launched by the Chief Minister of the ACT but this meant that the senior managers of the Institute felt compelled to attend. Whilst there, we were able to showcase living examples of our work: the graphic designer of our book was a former student of our support program who had just landed her first full-time job; another former student played some guitar music from his recently-released debut CD; and a current student thanked the Chief Minister saying what a difference the program had made to her studies in Law for Accounting.

Invitations to address departmental staff meetings and run staff development sessions started to become more frequent from that time on. In these sessions we aim to explain the areas of difference that students perceive to be the most problematic. We have even invited migrant students in our program to address the group about how they have coped with studying in a different educational culture. From our evaluations it is clear that teachers greatly appreciate hearing about these issues directly from the students.

STUDENT BODY AS A WHOLE

From these successful staff development sessions, teachers are now inviting members of the team to address whole class groups on diversity issues. In these presentations and lessons, we outline the differences between individualist and collectivist cultures and how these differences are manifested in daily life.

We do not have a standard presentation but adapt our knowledge and understandings to the needs of the particular group. For example, this year we have delivered sessions on diversity as related to Reception Protocol and Quality Teams in the Diploma of Office Administration, and sessions on Workplace Diversity, looking at diverse cultures as an opportunity for improvement of service rather than as a drawback, for students in their final year of a Tourism Diploma.

CONCLUSION

We intend to continue to address the issue of completion rates for migrant students by working with all three groups as described in this paper. With a tightening funding base, our challenge for the future is to maintain our quality service to migrant students, teachers and the whole student body of our Institute, and to find ways of increasing our reach into our TAFE community without actually spending more money.

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